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No. 03-1162

SUPREME COURT, U.S.
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IN THE

Supreme Court of the United States

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, *et al.*,
Petitioners,

v.

TENNESSEE VALLEY AUTHORITY, ALABAMA POWER COMPANY, DUKE ENERGY CORPORATION, TENNESSEE VALLEY PUBLIC POWER ASSOCIATION, *et al.*,
Respondents.

On Petition for a Writ of Certiorari to the United States Court of Appeals for the Eleventh Circuit

BRIEF OF ALABAMA POWER COMPANY AND DUKE ENERGY CORPORATION IN OPPOSITION TO PETITION FOR A WRIT OF CERTIORARI

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PARTIES TO THE PROCEEDING

Petitioners before this Court (respondents before the Court of Appeals) are the United States Environmental Protection Agency and Michael O. Leavitt, Administrator, United States Environmental Protection Agency.

Respondents before this Court (petitioners before the Court of Appeals) are the Tennessee Valley Authority; Alabama Power Company; Duke Energy Corporation; Tennessee Valley Public Power Association; Memphis Light, Gas & Water Division; Electric Power Board of Chattanooga; Middle Tennessee Electric Membership Corporation; North Georgia Electric Membership Corporation; and Volunteer Electric Cooperative.

DISCLOSURE STATEMENT

Alabama Power Company ("Alabama Power") is a wholly-owned subsidiary of Southern Company, a publicly-held company which owns all of the outstanding common stock of Alabama Power; no other publicly-held company has a 10% or greater ownership interest in Alabama Power.

Duke Energy Corporation ("Duke") is an energy company traded on the New York Stock Exchange under the symbol DUK. No publicly-held company has a 10% or greater ownership interest in Duke.

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STATUTORY PROVISIONS INVOLVED

Petitioners have included some of the relevant provisions of the Clean Air Act (CAA) in an appendix to their petition. Additional relevant provisions are reprinted in an appendix to this brief in opposition. The appendix to this brief also contains materials from the record before the Court of Appeals which Respondents believe are essential to an understanding of the petition and which were omitted from Petitioners' appendix.

STATEMENT OF THE CASE

This case involves multiple, separate petitions for review challenging action by the United States Environmental Protection Agency (EPA) relating to certain maintenance, repair, and replacement activities at several electric generating units owned and operated by the Tennessee Valley Authority (TVA). On November 3, 1999, EPA issued an Administrative Compliance Order (ACO) which found that TVA had been violating the CAA for nearly twenty years by performing various activities to maintain and repair its electric generating units. EPA amended the ACO several times, the last time on May 2, 2000.[1]

On May 4, 2000, the Administrator of EPA directed the agency's Environmental Appeals Board (EAB) to conduct a "reconsideration proceeding."[2] The Administrator directed the EAB to allow only "limited" discovery and oral testimony, close the administrative record by August 1, 2000, and issue a decision by September 15, 2000. The EAB issued its decision on September 15, 2000, as directed. The EAB

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[1] Three petitions for review of the ACO were filed with the Court of Appeals. TVA filed an individual petition (No. 00-12310-E); Alabama Power and Duke filed a joint petition (No. 00-12311-E); and TVPPA filed an individual petition (No. 00-12349-E). In addition, after EPA refused to stay the ACO, TVA filed a petition for review of that decision (No. 00-12459-E); Alabama Power and Duke filed a separate joint petition (No. 00-12458-E); and TVPPA filed a separate individual petition (No. 00-12457-E). Based on the issuance of the EAB decision on September 15, 2000, the Court of Appeals dismissed these six petitions as moot. *See* Pet. App. 61a. EPA's petition for a writ of certiorari does not seek review of the dismissal of these six petitions, and no cross petition has been filed seeking review of the dismissal of any of these six petitions.

[2] The EAB is a board located within the Administrator's office whose members are not independent Administrative Law Judges (ALJs), but are instead appointed by and serve at the pleasure of the Administrator. *See* 40 C.F.R. § 1.25(e)(1).

decision upheld virtually all of the findings and sanctions contained in the ACO that EPA chose to prosecute.

Following the issuance of the EAB decision, TVA, Alabama Power, Duke, and TVPPA[3] filed petitions with the Court of Appeals for review of the EAB decision. *See* No. 00-15936-E (TVA); No. 00-16234-E (Alabama Power); No. 00-16235-E (TVPPA); and No. 00-16236-E (Duke). For purposes of review, the Court of Appeals consolidated the four petitions.

The Court of Appeals issued two opinions addressing the petitions for review. In its first opinion, dated January 8, 2002, the Court of Appeals resolved several threshold issues. Pet. App. 51a-99a, reported at *TVA v. EPA*, 278 F.3d 1184 (11th Cir. 2002). With respect to TVA, the Court of Appeals held that TVA possessed independent litigating authority and that its dispute with EPA presented a justiciable "case or controversy." Pet. App. 61a-74a. The Court of Appeals held that the EAB decision was a final reviewable order. Pet. App. 74a-76a. The Court of Appeals also held that Alabama Power, Duke, and TVPPA (collectively "Private Parties") had standing to challenge the EAB decision. Pet. App. 89a-98a.

In its second opinion, dated June 24, 2003, the Court of Appeals held that the CAA statutory scheme under which the ACO was issued "is unconstitutional to the extent that mere noncompliance with the terms of an ACO can be the sole basis for the imposition of severe civil and criminal penalties." Pet. App. 1a-50a, reported at *TVA v. EPA*, 336

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[3] Joining TVPPA in its petition were 5 of its members—Memphis Light, Gas & Water Division, Electric Power Board of Chattanooga, Middle Tennessee Electric Membership Corporation, North Georgia Electric Membership Corporation, and Volunteer Electric Cooperative. For sake of convenience, all of these petitioners are referred to collectively as "TVPPA."

F.3d 1236, 1260 (11th Cir. 2003). The Court concluded that, in light of this constitutional infirmity, the ACO lacked finality under the test in *Bennett v. Spear*, 520 U.S. 154 (1997), and that therefore the Court lacked jurisdiction to review it. Pet. App. 46a. Based on this holding, the Court of Appeals dismissed the petitions for review. The Court of Appeals withdrew only part D of its first opinion, which held that the ACO was reviewable. Pet. App. 19a-20a.

EPA filed a petition for a writ of certiorari on February 13, 2004. EPA's petition requests review of three issues: 1) whether the Court of Appeals erred in holding that the CAA's sanctions for non-compliance with an EPA order violate TVA's rights under the Due Process Clause and Article III of the Constitution, thereby rendering the order issued by EPA to TVA in this case without legal effect—and therefore non-final and not subject to judicial review; 2) whether a dispute between TVA and EPA, two executive-branch agencies whose leaders serve at the pleasure of the President, presents a justiciable case or controversy; and 3) whether TVA has independent litigating authority to bring this case over the objection of the Attorney General.

REASONS FOR DENYING THE PETITION

Alabama Power and Duke ask this Court to deny EPA's petition for a writ of certiorari. TVA's brief in opposition sets out many reasons for doing so, and Alabama Power and Duke hereby adopt those reasons. Alabama Power and Duke write separately in opposition to the petition to emphasize the fact that the existence of Private Parties' own petitions for review (which the Court of Appeals held they had standing to maintain) make this case justiciable even without TVA's participation.

EPA's petition incorrectly states that the Private Parties' presence will not affect the outcome of this case. *See* Pet. 28-29. This is a misstatement of law and reflects a basic

misunderstanding of the facts. To the contrary, even if this Court were to agree with EPA that TVA's petition did not present a justiciable controversy, there would still exist a justiciable controversy with respect to the EAB decision because of the Private Parties' petitions.[4] The same is true with respect to whether TVA possesses independent litigating authority. Therefore, even if the first issue raised by EPA in its petition were resolved in EPA's favor, this dispute would be remanded to the Court of Appeals regardless of the outcome of EPA's issues two and three. Because resolution of issues two and three would have no impact on the ultimate resolution of the case, those issues do not present substantial federal questions warranting this Court's review.

I. THE PRESENCE OF THE PRIVATE PARTIES ASSURES THAT THE CONTROVERSY BEFORE THE COURT IS JUSTICIABLE

EPA asserts in its petition for a writ of certiorari that the presence of the Private Parties "is unlikely to affect the disposition of this case." Pet. 28. According to EPA, "[i]f the Court determines that . . . the dispute between TVA and EPA presents no Article III case or controversy, then this entire case should be dismissed." Pet. 28. This is a misstatement of law and fact.

It is well settled that so long as a dispute is justiciable as between two parties, the matter is a live controversy that satisfies Article III's case or controversy requirement. *See, e.g., Department of Commerce v. United States House of Representatives*, 525 U.S. 316, 330 (1999) (holding that the "presence of one party with standing assures that [the] controversy before [the] Court is justiciable") (citing

[4] The Court of Appeals correctly held that the Private Parties had standing to maintain their own petitions (the only justiciability issue raised with respect to their petitions), *see infra*, section II, and EPA does not seek review of that holding.

Director, Office of Workers' Compensation Programs v. Perini North River Associates, 459 U.S. 297, 303-305 (1983)). *See also Arlington Heights v. Metro. Housing Dev. Corp.*, 429 U.S. 252, 264 n.9 (1977) ("Because of the presence of this plaintiff, we need not consider whether the other individual and corporate plaintiffs have standing to maintain the suit."); *Save Our Heritage, Inc., v. FAA*, 269 F.3d 49, 55 (1st Cir. 2001) ("It is sufficient for the case to proceed if at least one petitioner has standing."). In the present case, the sole justiciability challenge raised by EPA with respect to the Private Parties was standing. The Court of Appeals correctly held that the Private Parties had demonstrated their Article III and prudential standing, and EPA—while stating in its petition that it "disagrees with the court of appeals' resolution of that issue"—does not raise it as an issue in its "Questions Presented." *See* Pet. (I) and 27.[5] Thus, the petitions of the Private Parties are viable, and it would be error to dismiss them even if this Court were to find that the dispute between EPA and TVA is not justiciable or that TVA did not possess independent litigating authority to maintain its own petition. Accordingly, the resolution of these two issues (issues two and three in EPA's petition)

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[5] EPA's stated reason for not raising the issue before this Court is that it "presents factual and legal complexities . . . and could prove difficult of resolution in this case." Pet. 28. Alabama Power and Duke suspect that at least part of EPA's motivation in not raising the standing issue is EPA's expectation that this Court would affirm the Court of Appeals on the issue based on the record and its recognition that such a ruling would render irrelevant the justiciability and independent litigating authority issues it wants this Court to decide. As discussed in subsequent sections of this brief, the Court of Appeals' holding that the Private Parties have demonstrated their standing follows this Court's precedent, is supported by the record, and is therefore wholly unremarkable. *See infra*, section II. *Cf.* Sup. Ct. R. 10(c) (providing that Court's decision whether to grant a petition for a writ of certiorari considers whether the court of appeals "has decided an important federal question in a way that conflicts with relevant decisions of this Court").

would have no practical effect on the outcome and are not substantial federal questions warranting review by this Court. *See Department of Commerce*, 525 U.S. at 344.

This Court's decision in *Department of Commerce*, *supra*, is instructive here. In that case, two separate sets of plaintiffs filed separate suits challenging the Census Bureau's plan to use statistical sampling in the 2000 Decennial Census to address the problem of undercounting. *See id.* at 320. The two cases involved identical substantive issues—whether the Census Bureau's plan violated the Census Act or the United States Constitution. *See id.* The first suit, *Clinton v. Glavin*, was brought by four counties and residents of thirteen states who claimed that statistical sampling would lead to the loss of their Representatives. 19 F. Supp. 2d 543 (E.D. Va. 1998). The second suit, *United States House of Representatives v. Department of Commerce*, was brought by the United States House of Representatives. 11 F. Supp. 2d 76 (D.D.C. 1998). The two suits, although raising the same substantive issues, raised unique justiciability concerns. In *Clinton v. Glavin*, the Census Bureau and the other federal defendants argued that the suit was not justiciable because the plaintiff counties and individuals did not possess Article III standing. 19 F. Supp. 2d at 545. In *United States House of Representatives v. Department of Commerce*, multiple Article III justiciability issues were raised including standing, ripeness, and the separation of powers doctrine. 11 F. Supp. 2d at 82-83.

On appeal, this Court held that because the record supported the Article III standing of one of the individual plaintiffs in *Clinton v. Glavin*, there existed a justiciable controversy as to the substantive issues in the two cases. *See Department of Commerce*, 525 U.S. at 330 (holding that the "presence of one party with standing assures that [the] controversy before [the] Court is justiciable") (citing *Director, Office of Workers' Compensation Programs v. Perini North River Associates*, 459 U.S. 297, 303-305

(1983)). Thus, this Court refused to address the justiciability issues as between the House of Representatives and the Department of Commerce, because resolution of those issues was not necessary to a resolution of the merits and therefore did not present a substantial federal question. *See id.* at 344 ("As this decision [in *Clinton v. Glavin*] also resolves the substantive issues presented by *Department of Commerce v. United States House of Representatives*, No. 98-404, that case no longer presents a substantial federal question.").

Likewise, the present case consists of multiple, separate petitions to the Court of Appeals for review of the same decision of the EAB. *See* No. 00-15936-E (TVA); No. 00-16234-E (Alabama Power); No. 00-16235-E (TVPPA); and No. 00-16236-E (Duke). The TVA petition and the Private Parties' petitions have drawn separate and distinct justiciability challenges from EPA. Because the record amply demonstrates the standing of the Private Parties (the only justiciability concern raised with respect to their petitions), and because EPA does not even request certiorari on that issue, there is no need for this Court to grant EPA's request to review the justiciability of the petition filed by TVA or TVA's independent litigating authority. *Department of Commerce*, 525 U.S. at 344.

II. THE RECORD AMPLY DEMONSTRATES THE STANDING OF THE PRIVATE PARTIES

EPA's petition does not seek review of the Court of Appeals' decision that the Private Parties have standing for good reason—the decision is squarely in line with the law, amply supported by the record, and presents no unique or substantial question warranting this Court's attention.

A. Article III Standing

Article III standing requires that a petitioner seeking judicial review of final agency action show: (a) injury in fact, (b) causation, and (c) redressability. *See Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560-61 (1992). Courts evaluate these three elements based on "the manner and degree of evidence required at the successive stages of the litigation." *Id.* at 561. As discussed below, the record in this case (which includes testimony submitted by the Private Parties) amply supports the Article III standing of the Private Parties to petition for review of the EAB decision.[6]

1. *Private Parties' Injuries Are Legally Sufficient*

a. Alabama Power's and Duke's Injuries

In response to a motion by EPA to dismiss their separate petitions in the Court of Appeals, Alabama Power and Duke submitted sworn testimony by way of declarations that established their injuries. These declarations demonstrate, among other things, Alabama Power's and Duke's injuries in the form of disruption and interference with their own electric transmission grids and increased energy costs as a result of the EAB decision.

TVA's electric generation and transmission system is interconnected with the systems of both Alabama Power and Duke. *See* Resp. App. 27a, 34a, 43a.[7] These interconnections allow for the frequent exchange of power between the connected systems in order to produce economic and

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[6] The Court of Appeals correctly held that Private Parties satisfy the prudential "zone of interest" test. *See* Pet. App. 94a-96a (citing 42 U.S.C. §§ 7401(b)(1) and 7409(d)(2)). *See also* 42 U.S.C. § 7470(3). EPA's petition does not call that holding into question.

[7] For example, Alabama Power has six major transmission interconnections with TVA. *See* Resp. App. 27a.

reliability benefits. *See* Resp. App. 27a, 34a, 14a, 43a. Specifically, the interconnections help prevent loss of electrical service (blackouts or brownouts) by facilitating the exchange of power during emergency conditions (*see* Resp. App. 27a, 34a) and provide cost savings by allowing for energy purchases from and through the neighboring system (*see* Resp. App. 26a-28a). For example, Alabama Power has contractual rights to a substantial amount of power generated by TVA and frequently purchases power that must travel across the TVA system. *See* Resp. App. 31a. This power is assumed and rationalized into the planning conducted by TVA's neighboring utilities to meet the demands of their customers and their own power supply commitments. *See id.*[8]

The EAB decision orders TVA, among other things, to undergo new source review permitting at thirteen of its generating units and to install new pollution control equipment. *See* Pet. App. 274a-281a and Resp. App. 34a-35a. This requirement to retrofit its units means that TVA would be forced to remove generating units from service for extended periods of time. *See* Resp. App. 29a-30a, 34a-35a. This loss of generating capacity is not projected in current planning. *See* Resp. App. 29a-30a. In addition, there is a strong possibility that some of TVA's generating units would be withdrawn from service permanently if TVA is required to comply with the EAB decision. *See* Resp. App. 35a.

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[8] Alabama Power and Duke both coordinate their operations with TVA through interconnection agreements filed with the Federal Energy Regulatory Commission (FERC) and through membership in the Southeastern Electric Reliability Council (SERC). *See* Resp. App. 27a, 34a. Alabama Power and Duke follow SERC guidelines to conduct internal reliability planning (*see* Resp. App. 27a-28a, 33a) that is based on expected available generation levels on the TVA system (*see* Resp. App. 4a-5a, 28a). SERC has requested review of the issue of reliability in light of EPA's enforcement initiative against its member utilities. *See* Resp. App. 44a.

The adverse effects of decreases in available generation resources are experienced regionally and are not limited to the owners of the equipment disrupted. *See* Resp. App. 13a-14a. Inadequate reserves at times when neighboring utilities are operating at full capacity creates a substantial risk of major electrical supply disturbances such as those that plagued the Midwest and Northeast this past year. *See* Resp. App. 4a-5a; *see generally* U.S.-Canada Power System Outage Taskforce, *Interim Report: Causes of the August 14th Black-out in the United States and Canada* (Nov. 2003), available at http://www.ferc.gov/cust-protect/moi/blackout-report.pdf. If TVA units were removed from service even temporarily, Alabama Power and Duke would have to take steps to maintain an adequate level of system reliability, including increasing their own generation levels and reserves and employing costly hedging techniques. *See* Resp. App. 5a-6a, 15a-16a, 28a, 35a.[9] In addition, when TVA units are off-line, there is a greater need for TVA to acquire capacity on the wholesale energy market, and this increased demand would drive up prices that Alabama Power and Duke must pay as competitors for that power. *See* Resp. App. 15a-16a, 28a-29a. For example, the prolonged loss of generation from just one of TVA's Cumberland units would cause TVA to import more power and frustrate Alabama Power's ability to use TVA and northern power markets for firm contract power. *See* Resp. App. 31a.

In addition to the specific units and maintenance projects targeted by the EAB decision, the EAB decision changes TVA maintenance practices going forward and impairs its ability to promptly return units to service. *See* Resp. App. 29a-30a, 51a. TVA must perform necessary maintenance on

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[9] At a minimum, additional reliability studies would have to be conducted by TVA, Alabama Power, and Duke to ensure that an adequate and reliable supply system is available under the changed TVA operating conditions created by the EAB decision. *See* Resp. App. 4a-5a.

its units to assure a reliable supply of electricity. *See* Resp. App. 46a. The EAB decision and its theory of routine maintenance would apply to maintenance activities that TVA is planning to undertake. *See id.* If TVA had to obtain permits in advance of these or other scheduled maintenance activities, the scheduled work would have to be postponed during the permit proceedings, and it can take a year or more to obtain a single permit. *See id.* The loss of TVA generating units due to additional equipment breakdown, deterioration, or delay in maintenance would jeopardize TVA's ability to meet the demands on its system and to assist other systems in meeting their demands, and has the potential of leading to brownouts and rolling blackouts. *See* Resp. App. 44a, 46a-48a. This change in TVA maintenance practices results in an increased present risk that TVA would not be able to provide the power which is currently factored into the reliability plans of neighboring utilities. *See* Resp. App. 29a, 49a. This loss of TVA generation resources would also result in higher market prices for electricity. *See* Resp. App. 29a-30a.

In addition, Duke purchases electricity for its own consumption directly from TVA. Specifically, a Duke subsidiary that operates a gas pipeline purchases electricity directly from TVA in order to run compressor stations. *See* Resp. App. 55a. If electricity were unavailable from TVA, this subsidiary would have to restrict use of the pipeline and limit the volume of gas transported. *See* Resp. App. 55a. The subsidiary presently has no other alternative source of electricity in the Tennessee Valley. *See* Resp. App. 55a.

In its petition to this Court, EPA failed to mention any of this evidence. So too, EPA failed to mention that this evidence was specifically relied upon by the Court of Appeals to reach its decision on the standing issue. *See* Pet. App. 92a-93a. This evidence is more than adequate to support the Private Parties' standing. This Court has held that "[e]conomic injuries have long been recognized as sufficient to lay

a basis for standing," and this principle has been extended to claims brought under the CAA. *Sierra Club v. Morton*, 405 U.S. 727, 733 (1972).

EPA's principal argument against the Private Parties' standing was that their injuries were "highly speculative." Pet. App. 89a. As the Court of Appeals recognized, EPA's argument fails to appreciate the nature of the Private Parties' injuries. Operation of an electric transmission grid must take into account possible future events that would cause disruption. The fact that the EAB decision purports to "alter[] the legal regime" under which TVA conducts its maintenance activities causes a present injury to interconnected grid operators like Alabama Power and Duke who must take into account that new regime and the uncertainty which it causes. *See Bennett*, 520 U.S. at 169.

b. TVPPA's Injuries

TVPPA's standing was likewise established by the evidence before the Court of Appeals. *See* Pet. App. 96a-98a. One hundred and fifty-nine (159) of TVPPA's member systems have entered into long-term wholesale power and supply contracts with TVA that require each system to purchase all of its requirements of energy and capacity from TVA. *See* Resp. App. 39a. In the fiscal year most recent to the submission of TVPPA's affidavit, TVPPA's members purchased one hundred percent of their electric energy requirements from TVA, representing approximately eighty-three percent of the electric energy produced by TVA. *See* Resp. App. 39a-40a. Under these long-term, all-requirements contracts, TVA has the right to adjust or change wholesale and retail rates during the term of the contract in order to assure TVA's ability to continue to supply the power requirements of the TVPPA member systems and TVA's other customers on a financially sound basis. *See* Resp.

App. 40a. As a result, TVPPA member systems would be ultimately responsible for paying most of the increases in TVA's costs resulting from the EAB decision. *See id.*

Additionally, one hundred and nine (109) members of TVPPA are municipal governments in Tennessee, Kentucky, Alabama, Mississippi, Georgia, and North Carolina that buy energy and capacity from TVA. *See* Resp. App. 40a. These municipal governments rely upon the availability of low-cost electricity purchased at wholesale from TVA to assist them in economic development efforts and will suffer an economic disadvantage compared to other communities due to the higher power costs that will result from the EAB decision. *See* Resp. App. 40a, 50a-52a.

Relying on these facts, the Court of Appeals found that TVPPA was injured by the increased cost of electricity that its members will be forced to pay. *See* Pet. App. 98a.[10] The Court of Appeals concluded that "business realities make it likely that TVPPA's members can expect *some* rate increases as a result of EPA's order, a point that EPA apparently concedes." *Id.* (emphasis in original). As the Court of Appeals noted, even EPA conceded that compliance with the EAB decision would raise the rates that TVA charges its customers like TVPPA. *Id.* This economic harm from the EAB decision is more than sufficient to provide TVPPA with standing. *See, e.g., Southwestern Pa. Growth Alliance v. Browner*, 144 F.3d 984 (6th Cir. 1998) (holding that organization of manufacturers and governments in Pennsylvania had standing to challenge EPA order based on economic disadvantage that order would cause); *Central Ariz. Conservation Dist. v. EPA*, 990 F.2d 1531, 1538 (9th Cir. 1993)

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[10] Because TVPPA's standing was demonstrated by the fact of increased rates, the Court of Appeals did not need to consider TVPPA's standing on the basis of the economic disadvantage that would be suffered by its members as a result of the EAB decision. *See* Pet. App. 98a.

(holding that standing was satisfied by showing that agency action "will likely cause Petitioners *some amount* of pecuniary harm") (emphasis in original).

2. Private Parties' Injuries are Fairly Traceable to the EAB Decision

To establish that the Private Parties' injuries are fairly traceable to the EAB decision, the law does not require that the Private Parties prove a cause and effect relationship with absolute certainty. Rather, a substantial likelihood that they will be harmed by the EAB decision is sufficient. *See Duke Power Co. v. Carolina Envtl. Study Group*, 438 U.S. 59, 75 n. 20 (1978). This principle applies even in cases where the injury is the result of agency action primarily directed at someone else. *See generally id.* For example, in *Bennett v. Spear*, the United States Fish and Wildlife Service (FWS) argued that a water district's injury was not fairly traceable to FWS's biological opinion because the proximate cause of the harm stemmed from the Bureau of Reclamation's allocation of water and not from the biological opinion itself. 520 U.S. at 168. The FWS, like EPA here, focused on the fact that the Bureau, like TVA, "retains ultimate responsibility for determining whether and how a proposed action shall go forward." *Id.* This Court, however, rejected that line of thinking, stating: "This wrongly equates injury 'fairly traceable' to the defendant with injury as to which the defendant's actions are the very last step in the chain of causation." *Id.* at 168-69. The Court recognized, while injury should not be the result of the independent action of some third party not before the court, "that does not exclude injury produced by determinative or coercive effect upon the action of someone else." *Id.* at 169. In fact, *Bennett* involved what EPA would describe here as a non-justiciable dispute between two federal agencies (the Bureau of Reclamation and the FWS), but that did not change this Court's conclusion that the water district had standing.

The Court of Appeals followed *Bennett's* causation analysis when it held that the harms to Alabama Power and Duke were fairly traceable to EPA's action in this case. *See* Pet. App. 93a-94a. Even more so than the biological opinion in *Bennett*, the EAB decision has a determinative and coercive effect on TVA's actions.[11] EPA itself makes this point clear by asking this Court to reverse the Court of Appeals' decision that "TVA is free to ignore the ACO." Pet. App. 3a. EPA cannot have it both ways.

Department of Commerce, *supra*, also illustrates the principle that petitioners need not show that the challenged action is the last link in the chain of causation. In that case, one of the individual plaintiffs, a resident of Indiana, submitted an expert affidavit that demonstrated his standing to challenge the Census Bureau's proposed census plan. *See Department of Commerce*, 525 U.S. at 330. The affidavit was based on the expert's *projection* of year 2000 populations. *Id.* The expert used these projected populations as the basis for further projections of how many Representatives would be apportioned to each State under each census method, ultimately reaching the conclusion that "it is a virtual certainty that Indiana will lose a seat ... under the Department's Plan." *Id.* The fact that the plaintiff's demonstration of causation involved multiple projected events did not prevent this Court from holding that the plaintiff had satisfied his standing burden. *Id.* at 330-332.

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[11] At the inception of this case, it was as true here as it was in *Bennett* that the target agency (here, TVA) was "technically free to disregard" the order issued to it, "but [did] so at its own peril (and that of its employees)" who could have been subject to civil and criminal penalties for violation of the CAA. *Bennett*, 520 U.S. at 170. EPA, like the FWS in *Bennett*, is "keenly aware of the virtually determinative effect" of its orders and should not be allowed to avoid judicial review by denying that effect. *Id.*

3. Private Parties' Injuries are Redressable

The third element of constitutional standing requires that the requested judicial relief be "likely" to redress the injury. *Lujan*, 504 U.S. at 561. Redressability is not a difficult test to meet. "[A] probabilistic benefit from winning a suit is enough 'injury in fact' to confer standing in the undemanding Article III sense." *North Shore Gas Co. v. EPA*, 930 F.2d 1239, 1242 (7th Cir. 1991) (internal citations omitted). Courts find redressability if the requested relief is the vacatur of the agency action that would impose the burden. *See, e.g., Central Ariz. Conservation Dist.*, 990 F.2d at 1538 ("[E]limination of the Final Rule would necessarily eliminate the increased financial burden the rule causes."). Clearly, the Court of Appeals' vacatur of the EAB decision redressed the Private Parties' injuries by enabling TVA to leave unchanged its well-established and predictable operational and maintenance practices, thereby preserving plant availability and reliability and avoiding the increased costs caused by the EAB decision.

B. Private Parties Met and Exceeded Their Burden to Demonstrate Standing

Applying this Court's decision in *Lujan*, the Court of Appeals for the D.C. Circuit recently explained that, where a petitioner seeks direct review of agency action in the court of appeals and "the petitioner's standing is not self-evident . . . the petitioner must supplement the record to the extent necessary" to substantiate the three elements of standing. *Sierra Club v. EPA*, 292 F.3d 895, 900 (D.C. Cir. 2002).[12] Although

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[12] In most direct review cases, the petitioner's standing is self-evident, and no evidence outside the administrative record is necessary. *Sierra Club*, 292 F.3d at 899-900. *See also New England Public Communications Council, Inc. v. FCC*, 334 F.3d 69, 74-75 (D.C. Cir. 2003) ("We have no need to consider the application of *Sierra Club* in this case, however, [since the challenged agency order] affects payphone line rates

EPA specifically declines to seek certiorari on the issue of the Private Parties' standing. EPA nevertheless suggests that the Court of Appeals decision is somehow inconsistent with *Sierra Club*. *See* Pet. 27-28.

There is no inconsistency. Both the Court of Appeals here and the D.C. Circuit in *Sierra Club* applied this Court's *Lujan* decision. *Compare Sierra Club*, 292 F.3d at 898-900, *with* Pet. App. 89a-90a. Moreover, as the earlier discussion in this brief makes obvious, the Private Parties, acting consistent with *Sierra Club*, filed extensive declarations with the Court of Appeals that support each element of standing. This is precisely why, as EPA explains, there are "factual . . . complexities" presented by this issue that make certiorari inappropriate. Pet. 28.

The Court of Appeals relied on the declarations submitted by the Private Parties in concluding that standing had been shown. Pet. App. 92a-93a. Inexplicably, EPA seizes on a statement of the Court of Appeals that the Private Parties had "adequately alleged injury" to create the false impression that no evidence was submitted and that standing would not exist under *Sierra Club*. Pet. 28. That is simply not the case—the Private Parties submitted sworn testimony amply supporting their standing to challenge the EAB decision. That is all that *Sierra Club* and this Court's precedent require.

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in every state."); *Fund for Animals, Inc. v. Norton*, 322 F.3d 728, 733 (D.C. Cir. 2003) ("*Sierra Club*, however, does not require parties to file evidentiary submissions in support of standing in every case.").

CONCLUSION

The petition for a writ of certiorari should be denied.

Respectfully submitted.

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APPENDICES

APPENDIX A

UNITED STATES COURT OF APPEALS FOR
THE ELEVENTH CIRCUIT

Docket Nos. 00-12310-E, etc.
(Consolidated)

TENNESSEE VALLEY AUTHORITY, *et al.*,
Petitioner,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, and JOHN H. HANKINSON, JR., Regional Administrator, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION IV,
Respondents.

DECLARATION OF W. PERRY STOWE

I, W. Perry Stowe, depose and state as follows:

Background:

I am employed by Southern Company Services, Inc., 600 North 18th Street, Birmingham, Alabama, as the Director of Transmission Planning. I began working for Southern Company thirty three years ago as a Coop Student with Alabama Power Company and graduated in December 1971 with a Bachelor of Electrical Engineering degree from Auburn University. After graduation, I began working for Alabama Power in the Transmission Planning Department and progressed through various departments and positions within Alabama Power before transferring to Southern Company Services, Inc. as Manager, Transmission Planning in April, 1992. During this time, I received a Masters of Business Administration degree from the University of Alabama at Birmingham.

My current responsibilities include planning the 115 kV and above networked transmission systems for Alabama Power and its affiliates. I am a registered professional engineer in the State of Alabama.

Summary:

The purpose of this declaration is to inform the court about the transmission grid reliability impacts of TVA removing significant amounts of generation from service to make repairs as required by EPA. This declaration also explains why EPA has harmed reliability interests by mandating such actions without having taken sufficient time or provided for the study and factoring of the reliability impacts of its Order against TVA. This declaration will give a brief overview of how the North American electric system operates, how reliability is impacted if one entity within this system operates in an unplanned manner, the relationship of Alabama Power and its affiliates to TVA, and the present increased risk of reliability problems caused by the EPA Order against TVA.

Introduction:

The North American Electric Reliability Council (NERC) defines reliability of the interconnected bulk electric system in terms of two basic, functional aspects; adequacy and security. Adequacy is defined as "the ability of the electric system to supply aggregate electrical demand and energy requirements of the customers at all times, taking into account scheduled and reasonably expected unscheduled outages of system elements." Security is defined as "the ability of the electric system to withstand sudden disturbances such as electric short circuits or unanticipated loss of system elements." This entire process is a coordinated and planned effort among all the electric entities within an interconnection.

Each control area operator (such as TVA) in an interconnection owes a duty to every other operator (such as and including Alabama Power Company) within the same interconnection to plan for and operate its system in a safe and reliable fashion to meet customer requirements—so that all control area operators can keep the lights on in their areas of responsibility. When one entity interconnected to the grid has a situation that is unplanned and is more involved or larger than has been planned for in the past, then all entities within the interconnection will be adversely impacted. A portion of transmission planning involves risk management, identifying the risk of reliability events and managing these risks. The EPA Order has a significant and very real impact on the interconnected system by altering the relative risks of various system disturbances.

Reliability Planning:

The North American electric system operates as three distinct systems. These systems are divided geographically into the Eastern Interconnection, Western Interconnection and the ERCOT Interconnection. The Eastern Interconnection is the largest interconnection. It covers an area from Nova Scotia to Florida and from eastern New Mexico to Saskatchewan. The Western Interconnection is the second largest, extending from Alberta and British Columbia on the north to Baja California, Arizona, and New Mexico in the south. It has several direct current ties with the Eastern Interconnection. The ERCOT Interconnection includes most of the electric systems located within the state of Texas. It has two direct current connections to the Eastern Interconnection. For each of these Interconnections to operate safely and reliably and for them to provide dependable electric service to its customers, it must be planned and jointly studied in a coordinated manner.

An interconnection is made up of several entities that operate as "control areas" that have the responsibility to ensure that their customers have a safe reliable and adequate supply of power. One manner in which this is accomplished is through joint reliability planning studies. These studies are performed between TVA, Alabama Power and its affiliates under a reliability and coordination contract. In these studies, the parties share transmission and generation data and then perform studies to make sure that the joint systems have the capabilities to handle the forecasted loads. As these studies are conducted, the parties use the normal planning guidelines for the impacted companies to evaluate the electric system. For Alabama Power and its affiliates, these planning guidelines require that there be adequate and secure power supply to customers despite the loss of a single major generating unit at the same time as a single major transmission element is out of service. When this situation changes, such as when TVA's power generation units face higher than planned forced outage rates, will be out of service for longer periods to make necessary repairs (and obtain necessary EPA permits), then the reliability of the region and possibly the entire interconnection has a higher risk factor than if only the normal planning guidelines are evaluated. This higher risk factor requires control area operators to make appropriate adjustments to its reserves and operational practices.

To ensure efficiency and reliability of power supply, therefore, it is imperative that sufficient time be permitted to perform detailed evaluations and simulations of any proposed unit outages that exceed the normal planning guidelines prior to EPA's imposition of mandatory shut down schedules on TVA. The EPA Order, however, does not appear to contemplate or authorize this sort of evaluation and parts of it are now already affecting transmission risks. When significant amounts of generation are not available to supply loads and the actual loads are greater than the capability to supply the generation, and TVA is not able to bring "forced outaged"

units back to service as quickly as possible after necessary repairs or replacements, major problems are highly likely to develop such that significant portions of an interconnection could be without power. In the case of cascading outages, all loads could be impacted including traffic controls, hospitals and other critical infrastructure loads. For all of these reasons and out of a due abundance of caution, before these problems manifest, studies must be performed jointly among all interconnected and affected control areas to ensure that an adequate and reliable supply system is available to meet the loads of all customers within the interconnection. The EPA Order, again, fails to allow such collaboration and limits all compliance schedule to TVA and EPA alone, without any assurance that impacts on others will be considered or addressed.

Single Network Comprised of Inter-Working Components:

The monitoring and control function of an interconnection is distributed among the control areas that make up the interconnection. A control area is an electrical system bounded by metered tie lines. The control area operates its generation in a manner to maintain its interchange schedules with other control areas within the interconnection and contribute to frequency regulation of the interconnection. What this means is that the load and generation within a control area must be balanced on a moment-to-moment basis since electricity cannot be stored in these magnitudes. In simple terms, when I turn a light on in my home in Birmingham, Alabama, a generator(s) within the Eastern Interconnection increases its output to supply my instantaneous load and loss requirements. If this reaction to my action does not happen, then the system frequency will begin to decrease. Likewise, when a TVA plant goes down due to a component failure, other generators in the interconnection must increase output immediately to make up the TVA's short fall. The longer TVA must keep units down, the more other utilities

may have to make up the differences. The electric systems within each interconnection are responsible for planning to ensure that sufficient generating and transmission facilities are in place to meet their customers' demand reliably.

The EPA Order Will Contribute To New Stresses on The Bulk Power System:

The bulk power electric grid was constructed over time to facilitate the electric entity supplying the needs of its customers under a prescribed set of planning assumptions regarding load growth, generator construction and the operating characteristics of the existing generation fleet: These assumptions generally provide for the supply of generation to match the load requirements within a control area with a minimum amount of interchange between control areas.

Today, the electric industry finds itself in a transition position where a particular electric entity does not have the responsibility for serving all the load within its control area and new environmental regulations. In addition to this new contingency, new interpretations of old regulations are being imposed on the existing facilities. These changes have caused additional stress to be placed on the bulk power electric transmission system. These strains are concentrated in two primary areas. One is the uncertainty about who is building generating capacity to serve a particular load in question. Based on the latest NERC Reliability Assessment 1999-2008 Report published in May 2000 the summer generating capacity margins for 1999 through 2003 are at the lowest reported levels in many years. This report also states that the Eastern Interconnection is particularly low compared to earlier years. It is currently in the 12-14% range, while it is typically in the 14-16% range. In the 2008 time frame this value is reported as 8-10%. These numbers must be viewed with caution since they are being influenced by the construction of merchant generation capacity that may or may

not be included accurately in these reported values. Again, this is an unknown factor that makes the planning for a reliable bulk electric transmission system even more challenging. The second factor that is impacting the transmission grid is the impact of additional transactions on the bulk power grid. These transactions are the result of merchant generators locating generation close to fuel pipelines and water sources then moving power across the grid to their load centers. This power movement creates flow patterns and reactive power requirements that may not have been planned for or experienced in the past. These flow patterns use transmission capability that was previously constructed to facilitate reliable network load servicing. These factors in conjunction with the possibility of higher loads than projected due either to unseasonably hot weather or load growth being higher than forecast and extended outages to make enhancements to generators related to environmental regulations, increase the stress levels being placed on the bulk power transmission system.

Relationship of Alabama Power and the other operating affiliates of Southern Company with TVA:

Alabama Power is an operating company affiliate of the Southern Company. Alabama Power and Georgia Power Company, another of the Operating company affiliates of Southern Company, have interconnections with TVA that provide for the exchange of power between these entities and the other operating affiliates of the Southern Company. The Southern Company is a holding company located in the southeastern portion of the Eastern Interconnection that covers approximately 122,600 square miles of territory. The 2000 summer expected instantaneous control area load is projected to be in excess of 40,000 MW. The company has a fleet of generators, a demand side program and interconnections with its neighbors to provide supply assets to meet this projected demand. The Southern Company is a net

purchaser of energy on its interfaces during the projected 2000 summer season. With the summer weather projected to be hotter than normal by 2-4 degrees and the projected rainfall to be 75% of normal, Southern Company will be relying on the interconnections to provide a portion of its supply requirements. The reliability of the interconnected grid would be impacted if for any reason the projected supply quantities were not available during these peak times due to unplanned or extended outages of generating units.

TVA is one of the four major interfaces that the Southern Company will be relying on to supply a portion of its resources during the summer of 2000. The TVA interface is made up of 500 kV, 230 kV, 161 kV and 115 kV lines. Forcing TVA to have unplanned units off line for environmental repairs and mandating permitting for each and every instance of replacement of any of thousands of different power plant components, even before necessary repairs could be performed to bring a "forced down" unit back into service, has a significant reliability impact on Alabama Power Company and the entire Eastern Interconnection. The following negative impacts occur on the Eastern Interconnection as a result of the EPA Order and its requirements that TVA repair units under a prescribed timeline without sufficient prior studies of reliability impacts:

- maintenance outages already scheduled would be extended to facilitate the required enhancements,
- normally scheduled work will not be performed because of the environmental equipment work and this will result in increased equivalent forced outage rates,
- new extended maintenance outages would be required to repair impacted units,
- the units not impacted by this Order would be operated more to make up for the outage of the other units and thus may experience an increased forced outage rate,

- the inability of TVA to place units back in service promptly after a forced outage when the "fix" required to do so would trigger a new source review would limit the available generating capacity for TVA and others within the interconnection during a time when generating capacity is critical , and
- the bulk power pricing and stability impacts, as well as transmission system strains from modified flow patterns, will follow from TVA converting from a status as a net seller (generating what it needs and selling surplus) to a net buyer (not having enough generation to meet its needs, making up the deficiency with purchases from other utilities, and ceasing to have any surplus to sell to other utilities)

The resulting effect of any or all of these impacts would be a less reliable grid within the Eastern Interconnection and an increased probability there will be major system disturbances that will cause interruptions or curtailments of electric service within the interconnection.

Because of the increased probability of system interruptions caused by the EPA Order, prudent system operation requires that the impacts must be identified that would negatively impact the reliability of the Eastern Interconnection, and a plan must be developed to mitigate these impacts such that the grid remains reliable while the enhancements are being completed.

I declare under penalty of perjury that the foregoing is true and correct. Executed by me on the 24th day of July, 2000.

/s/ W. Perry Stowe
W. PERRY STOWE

APPENDIX B

UNITED STATES COURT OF APPEALS
FOR THE ELEVENTH CIRCUIT

Docket Nos. 00-12310-E
and
00-12459-E
(Consolidated under
Docket No. 12310-E)

TENNESSEE VALLEY AUTHORITY,
Petitioner,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, and JOHN H. HANKINSON, JR., Regional Administrator, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION IV,
Respondents.

DECLARATION OF DR. JOHN H. LANDON

1. I am a Principal and Director of the Energy and Telecommunications practice of Analysis Group/Economics, an economic consulting firm. I joined Analysis Group/Economics in March of 1997. Prior to joining Analysis Group/Economics, I was employed by National Economic Research Associates (NERA) from 1977 to 1997 as a Senior Consultant, Vice President, Senior Vice President, and member of the Board of Directors. Much of my work over the last twenty-three years has been on issues relating to the application of economic principles to the electric utility industry. I have participated in numerous projects addressing electric industry economics and related antitrust issues. I have provided expert testimony related to the electric industry

before the Federal Energy Regulation Commission (FERC), the Securities and Exchange Commission (SEC), state regulatory commissions, and federal and state district courts. I received a B.A. degree with highest honors from Michigan State University with a major in economics in 1964. I subsequently attended graduate school at Cornell University, where I was awarded an M.A. in economics in 1967 and a Ph.D. in the same field in 1969. I served on the faculty of Case Western Reserve University from 1968 to 1973, rising from the rank of assistant professor to associate professor, and on the faculty of the University of Delaware from 1973 to June 1977 as an associate professor. I studied regulatory economics both as an undergraduate (Michigan State with Professor Joel Dirlam) and as a graduate student (Cornell University with Alfred Kahn). I was one of the graduate assistants who provided research assistance for Professor Kahn as he wrote his *Economics of Regulation*. As a faculty member at Case Western Reserve University and the University of Delaware, I taught regulatory economics and authored or co-authored several articles and book chapters focused on economic aspects of the electric utility industry.

2. In my opinion, Alabama Power Company, its affiliates, and their customers are highly likely to suffer significant harm and injury upon Tennessee Valley Authority's (TVA) compliance with the Order issued to TVA by the Environmental Protection Agency (EPA). Indeed, Alabama Power Company and its customers are already suffering some harm caused by the uncertainty created by the EPA Order. In reaching my opinion I have relied upon the following:

> Compliance Order *In the Matter of Tennessee Valley Authority*, United States Environmental Protection Agency, Region 4, Docket No. CAA-2000-04-0008, Order [42 U.S.C. §§ 7413 and 7477].
>
> Motion of Petitioner Tennessee Valley Authority for Stay of Agency Order, *Tennessee Valley Authority v.*

United States Environmental Protection Agency, and John H. Hankinson, Jr., Regional Administrator, United States Environmental Protection Agency, Region IV, In the United States Court of Appeals for the Eleventh Circuit, Docket Nos. 00-12310-E and 00-12459-E.

Letter to Mr. Joseph R. Bynam, Tennessee Valley Authority from John H. Hankinson, Jr., Regional Administrator, Environmental Protection Agency regarding *In the Matter Of Tennessee Valley Authority*, Docket No. CAA-2000-04-0008, Order Under Sections 113 and 167 of the Clean Air Act.

Declarations of Gary P. Garrett, Jerry L. Golden, Gregory R. Singer, and Steven C. Struck, *Tennessee Valley Authority v. United States Environmental Protection Agency, and John H. Hankinson, Jr., Regional Administrator, United States Environmental Protection Agency, Region IV*, In the United States Court of Appeals for the Eleventh Circuit, Docket Nos. 00-12310-E and 00-12459-E.

WSCC Preliminary System Disturbance Report Draft, August 10, 1996, 1548 PAST. Prepared by a WSCC Investigative Task Force for submittal to the Department of Energy.

Testimony of Marcie L. Edwards, director of Bulk Power on behalf of the Los Angeles Department of Water and Power before the Water Power Resources Oversight Field Hearing on *Issues and Recommendations concerning the August 10, 1996 Bonneville/ Western U.S. Power Outage*, The Honorable John T. Doolittle, Chairman, November 7, 1996.

Report of the U.S. Department of Energy's Power Outage Study Team, Findings and Recommendations to Enhance Reliability from the Summer of 1999, January 2000, Interim Report. (Provided details of individual outages.)

Report of the U.S. Department of Energy's Power Outage Study Team. Findings and Recommendations to Enhance Reliability from the Summer of 1999. March 2000. Final Report.

Results of HEAT WAVE 1999: July 1999 Low Voltage Condition; Root Cause Analysis. March 21. 2000. Prepared by Root Cause Analysis Review Team. accepted by PJM Operating Committee.

Staff Report to the Federal Energy Regulatory Commission on the Causes of Wholesale Electric Pricing Abnormalities in the Midwest during June 1998.

Electricity Prices in a Competitive Environment: Marginal Cost Pricing of Generation Services and Financial Status of Electric Utilities. A Preliminary Analysis Through 2015. August 1997. prepared by the Energy Information Administration.

Customer Value of Service Reliability Study. March 1. 1999. Submitted by Southern California Edison to California Public Utilities Commission as required by Decision (D.) 97-09-092.

A Stochastic Model for the Measurement of Electricity Outage Costs. by Abraham Grosfeld-Nir and Asher Thisler. *Energy Journal*. April 1993. vol. 14. No. 3.

Various news reports on outages and reliability problems around the country.

3. It is reasonably certain that the unanticipated. prolonged withdrawal of TVA generating plants from service to comply with the order will lead to significant adverse consequences to Alabama Power Company. its affiliates and their customers. Alabama Power Company operates in a geographic region that is contiguous to TVA. Both entities are members of the Southeastern Electric Reliability Council (SERC).

Alabama Power Company is directly interconnected with TVA; these direct interconnections facilitate direct bulk power transactions between TVA and Alabama Power Company and its affiliates. Such bulk power transactions are vital to the reliability and efficiency of the power grid and routine in the course of these businesses. In general, the adverse effects of disruptions to electrical service, including decreases in availability of generation resources, are experienced regionally and are not limited to the owners of the equipment disrupted. This phenomenon is characteristic of "networked" systems. One way to understand this is to look at examples from analogous networked industries with which people are generally more familiar. The airline industry offers an example of how unanticipated disruptions at one location can drastically affect service quality and reliability elsewhere in the network.

For example, adverse weather conditions in Chicago may delay or even ground planes at O'Hare airport. The effects of this service disruption typically will radiate well beyond service into and out of Chicago. For example, Atlanta-bound flights from Chicago will be disrupted, which, in turn, affects outbound service from Atlanta. Flights out of Atlanta may require equipment that is either grounded in Chicago or is rerouted to other cities to cover for equipment grounded in Chicago. Thus, airlines flying through Chicago may cancel or delay flights originating in Atlanta due to the unavailability of equipment. Outbound Atlanta passengers must rebook their air travel, abandon their travel plans or adopt a different mode of transportation. Frequently, passengers choose to rebook travel onto other airlines. The rebooking process leads to delays on alternative airlines' flights as ground crews scramble to accommodate as many passengers as possible, board them, recover and load their baggage, etc. These disruptions continue to radiate through the airline network as arrivals at outward bound (from Atlanta) destinations are cancelled or delayed. Similarly, Atlanta-bound flights from

cities other than Chicago also will be disrupted as a result of equipment stranded in Chicago, creating another round of disruptions. Furthermore, Chicago-bound flights that are in the air at the time of the service disruption will need to land at alternative airports such as Atlanta, resulting in further delays and disruptions at the airports receiving the diverted flights.

In a similar way, major disruption on the interconnected generation and transmission system cause a reaction that often reverberates hundreds if not thousands of miles away to affect neighboring utility systems. In contrast to the example of the airline industry, however, these negative effects are virtually instantaneous with the original disruption. There is no time to evade or to mitigate their negative impacts. In addition to direct costs that may be incurred by Alabama Power Company, its affiliates, and their customers, increased reliability risk to them is an inevitable cost that will arise should TVA's generating units be withdrawn to comply with the EPA's order. TVA's actions in closing certain of its generating stations create an increased risk of repercussions beyond its immediate service area in much the same way that closure of the Chicago airport creates an increased risk of delay to Atlanta outbound passengers. The development of this increased risk is similar to the way that traffic delays at one location cascade throughout the airline system creating expense and delay at distant locations. This cost is manifest in a higher expected value of energy production or of energy that will not reach customers due to system outages.

4. The regional character of electricity markets and technologies means that withdrawal of TVA's generating plants in order to comply with EPA's order will have a significant and immediate adverse effect on Alabama Power Company, its affiliates, and customers. At a minimum, this effect will take the form of increased risk of price spikes and transmission system outages. This risk is costly and harmful. The cost of the risk can be measured as the cost of hedging it with

market instruments, of insuring against its effects, or of keeping generation units operating that would otherwise be off-line. However, some of the risks cannot be hedged and others may be uneconomic to hedge. Hedging risk by purchasing options or keeping costly plants online is expensive. If the risks are not completely hedged, the higher risk is itself a direct cost to Alabama Power and its customers. Electrical supply systems are typically designed so that the probability of customers' losing electric service does not exceed one day in ten years. In 1999, Alabama Power sold 67,627,000 MWh of electricity to native load and other customers, or about 7,720 MW per hour on average. This level of sales equates to a ten-year system design loss of electric service 185,279 MWh or to a 92,640 MWh loss over the likely five-year retrofit period. If this exposure increases by only a tenth as a consequence of the plant outages resulting from TVA's compliance with the Order, that is 9,264 MWh. Valued at $6.00 per kilowatt-hour, this gives an increased cost of $55.6 million for the five years.[1] This is the amount that Alabama Power Company and/or its customers would be willing to pay to others to avoid the increase in risk. Such hedging might include paying to bring back in service mothballed units or paying other utilities to postpone maintenance. If hedging or insurance instruments are too expensive, or if there is no suitable hedging or insurance instrument available, Alabama Power Company, its affiliates, and their customers will bear directly the higher expected level of outage costs.

5. At a minimum, withdrawing plants from service has three regional impacts: 1) prices for power are increased, 2) regional system reliability is decreased, and 3) other

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[1] Six dollars per kilowatt-hour is the midpoint of the range of estimates of the cost to customers of unserved electricity. See: Southern California Edison. "Customer Value of Service Reliability Study," March 1, 1999. Submitted to California Public Utilities Commission as required by Decision (D.) 97-09-092.

regional generators are operated and maintained in a less efficient manner.

- Spot prices for power usually reflect the costs of the marginal (most expensive) plant. Prices for power are increased when efficient, low-cost generating units are withdrawn because this leads-to utilization of less efficient and more expensive plants to meet regional loads.

In addition, TVA may need to shop for replacement power in the spot market to meet its obligations. The resulting increase in demand for power will lead to further price increases. These price increases will be driven by the mismatch between resources and demand, and prices will be determined in a market which will have decreased supply to meet the same level of demand. That means higher prices for utilities in the region and higher rates for their customers.

- System reliability is determined in part by reserve margins, the amount of "resource cushion" available under peak conditions. This measure of system reliability reflects the vulnerability of the regional system to disturbances at the time when it is most exposed to risk. When plants are withdrawn from service for an extended period of time, system reliability throughout the region is reduced. This is because regional reserve margins are reduced. As a result, there is less head-room for dealing with potential problems because system operators have less margin for error, leading to an increased likelihood that demand will exceed generation capacity. Parties tend to limit their activities to reduce their exposure to the increase in risk. Commercial transactions that would otherwise take place are likely to be curtailed or to have higher costs as sellers charge a risk premium.

In addition to the reserve margin issues, the regional transmission system requires generation plant support in

order to maintain stability. Under peak conditions, when the transmission system is stressed, generation support may become critical to ensuring regional system reliability. Under these conditions, withdrawal of generating plants from service increases the likelihood of transmission system operational instability. This effect is exacerbated for summer-peaking utilities since plant generating capability and transmission capability decline in hot weather. All of the instances of transmission system failure in Summer 1999 investigated by the Department of Energy took place during unusually hot weather conditions. Several of them were caused by insufficient generation capacity to support transmission system operation.[2]

- Power plant operation and maintenance are planned to promote the efficiency and reliability of the plants and the system. Generators have different characteristics. Some are more efficient when operated at high levels of output for long periods of time. Others are designed to be started and stopped frequently but are high-cost to operate. All units have planned maintenance cycles to optimize their contributions to the system and reduce the likelihood of forced outages. Units in the region were designed and sized in recognition of the other generating resources in the region. When substantial changes are made in the down time of several large generators in a region, all utilities in the region will have to accommodate the changes. As a result, units will be operated and maintained in less efficient ways, which will increase generation and maintenance costs and degrade generation unit reliability.

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[2] Report of the U.S. Department of Energy's Power Outage Study Team, Findings and Recommendations to Enhance Reliability from the Summer of 1999, March 2000.

6. The impact of price increases arising from the withdrawal of TVA's inframarginal units will adversely affect Alabama Power Company, its affiliates, and their customers since they will be forced to absorb the effects of any increased prices for purchased power. This. effect is reasonably certain and substantial since Alabama Power is a net purchaser of power during the peak period which is when the price effect will be greatest. Spot prices for electricity are not set in isolation. The market responds to many pressures. However, generation plant outages contribute to price movements, and that contribution is amplified by other market conditions. These are not merely hypothetical constructs. A number of recent examples illustrate the effect on spot markets and regional utilities of withdrawal of plants from service.

- In April 1999, the Number 6 unit at Tampa Electric's Gannon Plant exploded, knocking out the entire plant which supplied about 35 percent of the company's generation.[3] Coincident with this event, a number of generating units in peninsular Florida were out for planned maintenance, and an early heat wave hit the state. The combined effect of these events was to drive up prices; for example, the price for power purchased from out of state sources by Florida Power and Light between March and April nearly doubled, from $23.80 to $42.70.[4]

- Salem Units 1 and 2 were withdrawn from service in the Pennsylvania-New Jersey-Maryland Power Pool [5]

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[3] "Explosion cuts 35% of Tampa Electric's output" *Megawatt Daily*, April 9, 1999, Vol.4, No. 67.

[4] "Early Heat, Maintenance Outages Drive up Power Prices in Florida in April," *Southeast Power Report*, June 25, 1999, p.9.

[5] PJM Interconnection, LLC is responsible for the day-to-day operation of the largest centrally-dispatched electric system in North America. Its foremost responsibility is the safe and reliable operation of the

(PJM) on May 15 and June 8, 1995, respectively. This removed about 2,200 megawatts (MW) of capacity from service for a period of several months. Plant owners primarily purchased replacement power, which led observers to comment that "the loss of Salem for several months will be 'hurtful' to the pool."[6] However, the regional effects of the extended outage were most pronounced during a subsequent heat wave in which insufficient generating capacity led to pressure on electricity prices. PJM utilities ran thermal units at maximum generation levels as well as peaking units at a cost of $60 per megawatt-hour[7] for gas-fired and $90/MWh for oil-fired plants.[8] This compares with a variable cost of generation of $15-$20/MWh for coal plants in PJM.[9] According to press reports: "For two days, some PJM utilities were close to maximum emergency generation levels and 'prices didn't matter' as long as the power could be secured, a source said."[10] PJM system lambda in the peak hours during June

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transmission system and ensuring the reliable supply of energy from generating resources to wholesale customers. In addition, PJM operates the competitive wholesale energy market for the region and facilitates open access to transmission. (Source: www.pjm.com).

[6] "Midwest, PJM Prices Ride Heat Wave; PSE&G's Units Down for Months," *Power Markets Week*, June 26, 1995.

[7] One megawatt-hour is equal to one million watts drawn for a period of one hour. It is equivalent to the amount of energy required to light 10,000 light bulbs of 100 kilowatts for an hour.

[8] "Midwest, PJM Prices Ride Heat Wave; PSE&G's Units Down for Months," *Power Markets Week*, June 26, 1995.

[9] Based on 1995 variable costs of generation for Homer City Units 1, 2, and 3, Seward and Warren plants.

[10] "Midwest, PJM Prices Ride Heat Wave; PSE&G's Units Down for Months," *Power Markers Week*, June 26, 1995.

through August 1995, increased by 7.4 percent compared with peak system lambda for the same period in 1994.[11]

• Regional exposure to risk of high prices due to generation outages is further demonstrated by the unprecedented price spikes experienced in the Midwest in Summer 1998. The Federal Energy Regulatory Commission Staff that studied the underlying eauses of these extraordinary price levels found that they were due to a combination of factors. The first of these was that "An above average amount of generating capacity was not available in the midwestem United States due to planned and unplanned outages."[12] (emphasis added)

• Elsewhere, withdrawal of generating plants from service has led to reactivation of expensive, mothballed plants in order to ensure sufficient generating capacity. This will lead to higher prices for electricity. For example, in 1997 the Philadelphia Inquirer reported on reactivation of four 50-year-old mothballed plants in order to supply power as needed in the wake of the shutdown of four out of the nine nuclear facilities in the region.[13]

7. Increased vulnerability of the transmission system also results when generation plant is removed from service. This can lead to disruptions and outages that impose significant

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[11] System lambda is the variable cost of the last unit from the dispatch order that is in service. Analysis is based on comparison of system lambda as reported on FERC Form 714 in the most expensive 390 hours in June through August of each year.

[12] Staff Report to the Federal Energy Regulatory Commission on the Causes of Wholesale Electric Pricing Abnormalities in the Midwest during June 1998. Executive Summary, page v.

[13] *McNeill Rates Nuclear Power a Top Competitive Asset, Peco Takes Contrarian Energy View*, Philadelphia Inquirer, July 20, 1997.

costs and hardship. Because the transmission system is so complex and interconnected, transmission outages which are triggered by localized problems can have very expensive, far-reaching effects. A number of recent examples illustrate the far-reaching effects of transmission failures due in part to inadequate generation support.

- On August 10, 1996, an event triggered by contact between a tree and a Bonneville Power Administration transmission line near Portland, Oregon cascaded throughout the Pacific Intertie and tripped off generators as far away as Arizona. The resulting power outages interrupted ". . . service to 7.5 million customers for periods ranging from several minutes to nearly six hours."[14] Hearings were held in the House of Representatives, and the Western Systems Coordinating Council (WSCC) conducted an in-depth investigation of the disturbance. While there are several, inter-related reasons for the extent of the damage, one of the contributing factors was that generating plant in the Northwest was out of service for environmental reasons and unavailable to supply voltage support when required to stabilize the transmission system.

- The Secretary of Energy appointed a panel of experts, the Power Outage Study Team (POST), to investigate some of the widespread power outages of the summer of 1999. The POST thoroughly studied eight major outages and disturbances. In the majority of cases, generation deficiencies played a role in the outages, either because there was simply insufficient capacity to meet load or because there was insufficient generation support for transmission service.

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[14] WSCC Preliminary System Disturbance Report, August 10, 1996. Page 2.

- One finding of the POST was that some members of SERC rely on the economy energy market to supply reliability to more than the usual degree. This circumstance led to rolling power outages in Entergy's service territory during 1999, resulting in over 550,000 of Entergy customers' losing power. Withdrawal of generating plant within the reliability region over extended periods likely will exacerbate this situation with adverse implications for Alabama Power Company and other utilities in the region.

The costs of widespread outages are very high. The cost of a particular outage will vary with many factors such as timing (day of week, time of day, etc.), weather conditions and so on. Because the cost of outages is an important factor in system planning, estimates are used to evaluate system outage costs. As previously noted, the midpoint of these estimates is about $6.00 per kilowatt-hour. The outage costs in many instances are much greater. Electronics firms, for example, can have outage costs at least as high as $20 per kilowatt-hour.[15] An example illustrates potential outage cost exposure to Alabama Power, its affiliates, and customers. Alabama Power's summer peak in 1998 was 10,329 megawatts (MW); in 1999 the peak was 10,739 MW. Based upon the $6.00 estimate of outage costs, a system wide outage of 10 percent of demand during peak hours[16] would cost around $18,000,000.[17] In fact, the cost of such an outage would likely be much higher since the cost per kilowatt-hour of

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[15] *A Stochastic Model for the Measurement of Electricity Outage Costs* by Abraham Grosfeld-Nir and Asher Tishler, Energy Journal, April 1993, Vol. 14, No 2, page 157.

[16] System peak is the time period most likely to experience outages that are due to insufficient generation capacity. For example, all of the outages studied in the POST report occurred under peak load conditions.

[17] Based on average hourly peak demand of 10,000 MW for three hours.

outages during peak is higher than $6.00. Should TVA withdraw plants from service to comply with EPA's order, the risk of outages will rise.

I declare under penalty of perjury that the foregoing is true and correct. Executed by me on this 12th day of July 2000.

/s/ John H. Landon, Ph.D.
JOHN H. LANDON
Principal

July 12, 2000

APPENDIX C

UNITED STATES COURT OF APPEALS FOR
THE ELEVENTH CIRCUIT

Docket No. 00-12310-E, and
Docket No. 00-12459-E
(Consolidated under lead
Docket No. 00-12310-E)

TENNESSEE VALLEY AUTHORITY,
Petitioner,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
and JOHN H. HANKINSON, JR., Regional Administrator,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
REGION IV,
Respondents.

DECLARATION OF GARY H. LITTLE

1. My name is Gary H. Little and I have been employed by the Southern Company Services, Inc. since 1974. I have a broad professional background with regard to electric system transmission, generation and markets. Included in this experience is 15 years in high voltage transmission planning, including managing the group responsible for assessing the adequacy of transmission interconnections with neighboring utilities. I have served as chairman of multiple joint utility transmission reliability and interconnections study groups, with representatives from most of the electric utilities in the Southeast United States. I also have 11 years of experience in generation and system reliability planning where I was responsible for determining the appropriate generation reserve levels and forecasting the required generation expansion to

meet future customer needs. I am currently employed as Manager, Market Planning at Southern Company Services. The Market Planning organization serves as a consultant to Alabama Power Company ("APC"), as well as the other operating companies of the Southern Company, on matters concerning wholesale market conditions. I received a Bachelor of Science in Engineering from the University of Alabama Birmingham in 1979. I have read the EPA Order against TVA as well as the declarations filed by TVA in this matter. I have personal knowledge of the facts stated herein.

2. APC and its affiliates each own and operate their own fleet of electric generation power plants to serve the electric needs of their customers reliably and at the least cost possible. These plants generate electricity with a diverse number of fuels and have differing cost structures and operating characteristics. Some of these plants are nuclear plants, that run around the clock, while some are fueled by more expensive fuels, such as oil, and are only run for short periods during peak demand. Other plants in APC's fleet are fueled by coal or natural gas and therefore run after the nuclear plants but before the oil units. Hydro plants have no traditional fuel cost, but have limited generation availability due to water limitations and are thus run mostly during peak times.

3. As a general rule, electricity can not be easily or cost effectively stored. It must be generated at the instant that customers demand it, otherwise customers will be disconnected. The demand for electricity varies greatly from one season to the next as well as between different days and hours. These patterns are based on numerous factors such as temperature and business needs. Therefore, to minimize cost and maximize efficiency, utilities (including APC) use their least expensive generation first and then use additional power plants in order of increasing cost, until the current demand is

met. When power is available from neighboring utilities at a cost less than the cost of the next unit to be started, a purchase will be made that will lower the average cost to customers. (This kind of transaction is often referred to in the electricity industry as "economy" or "opportunity" transaction.) When a utility runs out of generation due to extreme weather or significant planned or forced outages, purchases can and will be made from neighboring utilities, if available, rather than disconnecting customers. (These purchases are often referred to as "emergency" or "reliability" transactions.) For APC to realize these efficiency and reliability benefits, interconnected power systems, including TVA, must have generation in excess of its load available for supply to other power systems.

4. The electric power systems of TVA and APC have been interconnected for decades. These transmission interconnections have allowed for the routine exchange of power between the companies for economic and reliability benefits. There are currently a total of six major interconnections between TVA and APC, consisting of: two interconnections operated at 500,000 volts; three interconnections operated at 161,000 volts; and one interconnection operated at 115,000 volts. There also are three additional interconnections between TVA and Georgia Power Company. All of these interconnections collectively are referred to as the "TVA Interface." The available emergency power that it delivers is critical to the operations and reliability of APC. The interconnected operations between TVA and APC (and it and its affiliates) are governed by the terms of an Interconnection Agreement, which is on file with the Federal Energy Regulatory Commission.

5. Due to the highly interconnected and integrated nature of the power system network within the Southeastern United States, coordination between APC and TVA is essential to ensure reliable operations. To facilitate coordinated opera-

tions, planning and reliability activities TVA and APC are both members of the Southeastern Electric Reliability Council ("SERC"). The stated purpose of SERC is to augment the reliability of the bulk power supply in the areas served by its member systems. This is best accomplished by promoting maximum coordination of planning, construction and utilization of generation and transmission facilities involved in the interconnected operations. The general guidelines implemented by SERC call for assessments of future resource adequacy which include: (i) availability and performance of all resources (including generation); and (ii) any environmental or regulatory limitations. SERC engages in these resource assessments due to the acknowledged reliability relationship between neighboring utilities.

6. APC (together with its affiliates) has retained Southern Company Services to advise and consult in the development of joint resource plans and reliability guidelines. APC and its affiliates' internal generation reliability planning is based, among other things, on expected economy and emergency power purchases from TVA. These purchases are counted on to avoid potential outages and available due to the fact that there are differences in the timing of peak conditions and unit failures among neighboring utilities. If TVA's planned available generation levels were decreased, APC would be required to have a higher level of generation reserves (additional power plants) to maintain an adequate level of system reliability. APC's expected ability to purchase power from and through TVA will be impacted adversely in two ways when TVA is unable to operate (or operate on a lower producing basis) some of its power plants due to EPA's order. First, TVA will be unable to provide APC and its affiliates with the emergency purchases they have planned on from TVA. Second, there will be a greater need for TVA to acquire capacity for its own needs with short notice in the regional market. This will cause a shortage of capacity in the region, impacting the availability and pricing of APC pur-

chases from other power generating organizations. This impacts both the economics and reliability of APC's power operation.

7. As a result of APC's reliability planning and dependence on the emergency purchases, a required transmission reservation called the "Capacity Benefit Margin" ("CBM") for each transmission interface with neighboring utilities has been determined. The Federal Energy Regulatory Commission has defined CBM as follows:

> That amount of transmission transfer capability reserved by load serving entities to ensure access to generation from interconnected systems to meet generation reliability requirements. Reservation of CBM by a load serving entity allows that entity to reduce its installed generating capacity below that which may otherwise have been necessary without interconnections to meet its generation reliability requirements. *Capacity Benefit Margin in Computing Available Transmission Capacity,* 88 FERC ¶ 61,099 (1999).

The CBM for the TVA Interface is 450 MW. This amount of interface capability has been reserved on an ongoing basis to ensure that emergency purchases can be delivered to APC and its affiliates from TVA when required to maintain system reliability. Since EPA's order causes TVA to change its operational and maintenance practices and discourages or prohibits the real time replacement of failed major components, there is a material increase in the present risk that TVA will not be able to provide the power contemplated in and planned for in the CBM.

8. In today's de-regulated wholesale electricity market the level of available generation in the region has a significant influence on the price of power in the daily market. This influence has become greater in recent years due to significant load growth in the Southeast while new generation additions have been less that this load growth. This reduction

in generation reserves has led to progressively higher market prices over the last three years. The EPA order requires TVA to remove much more generation for maintenance associated with retrofits than has been projected, and imposes regulatory requirements that will impair TVA's ability to return units to service that have been forced down due to capital component failure. The critical supply/demand balance upon which current pricing and resource assumptions are based will be upset. The loss of TVA generation resources from the market will result in higher market prices for electricity. Even more significant will be the high prices associated with major generation failures during peak load periods when the necessary repairs cannot be performed due to permitting concerns and restrictions. These losses of TVA resources from the market will cause higher wholesale power prices which will inevitably result in higher retail prices and the cost the public pays for power.

9. To illustrate the historical utilization of TVA generation for energy savings and reliability, the following table shows the growing annual purchases from TVA by APC and its affiliates for over the last three years. The KHW column shows the actual kilowatt-hours purchases from TVA for each year. The actual hourly purchases vary greatly, but to illustrate the magnitude and importance of these purchases the "equivalent homes served" column shows the number of APC customer homes whose needs could be served for an entire year by this energy:

Year	*kWh Purchased*	*Equivalent homes served*
1997	302,534,000	27,012
1998	493,796,000	44,089
1999	774,938,000	69,191

10. In addition to APC's dependence on TVA for spot generation purchases, APC and its affiliates have made long term purchases from TVA and its northern neighbors as a part of their generation resource planning. APC (jointly with its affiliates) are currently purchasing about 700 MW of firm contract power across the TVA interface for the summer of 2000. This accounts for about half of the planned imports during this time period. Of the 700 MW, 200 MW is directly from the TVA system. Reduced reliability and availability of TVA's plants would have significant reliability implications for APC since this purchase is a part of its planned internal generation reserves. For the summer of 2001, APC and its affiliates will be purchasing about 800-1000 MW of firm contract power to meet their internal reserve margin guidelines, of which about 400-500 MW is expected to flow across the TVA interface. Any significant reduction in TVA system availability (such as the prolonged loss of just one of its Cumberland units) will cause TVA to import more power and frustrate APC's ability to utilize TVA and the northern power markets for firm contract power. By potentially eliminating or reducing the northern power market, APC will incur economic harm with fewer suppliers to buy from in the marketplace.

I declare under penalty of perjury that the foregoing is true and correct. Executed by me on the 14th day of July, 2000.

/s/ Gary H. Little
GARY H. LITTLE

APPENDIX D

UNITED STATES COURT OF APPEALS FOR
THE ELEVENTH CIRCUIT

Docket No. 00-12310-E and
Docket No. 00-12459-E
(Consolidated under lead
Docket No. 00-12310-E)

ALABAMA POWER COMPANY, and
DUKE ENERGY CORPORATION,
Petitioners,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, and
JOHN H. HANKINSON, JR., Regional Administrator, UNITED
STATES ENVIRONMENTAL PROTECTION AGENCY, REGION IV
Respondents.

DECLARATION OF WILLIAM F. REINKE

I, William F. Reinke, having been duly sworn, depose and say as follows:

1. For the past 10 years, I have resided in Denver, North Carolina which is in Lincoln County. I am over 18 years of age, and give this affidavit based on my personal knowledge.

2. I have a Bachelor of Science degree and a Master of Science degree in Electrical Engineering from the University of Wisconsin. I also received a Master of Management degree from the University of North Carolina at Charlotte. I am also a registered Professional Engineer in both North Carolina and South Carolina.

3. I have worked for Duke Energy Corporation ("Duke Energy"), the Petitioner in the above-captioned case, for

approximately thirty-six (36) years. I joined Duke Power in 1964 as an Assistant Engineer in System Planning Department. I progressed through a number of assignments in System Planning and was named Manager of Production and Transmission Planning in 1977. I was named as the Manager of System Planning in 1984; Vice President of System Planning in 1990; and Vice President of System Planning and Operating in 1991. In 1997, I was appointed Vice President, System Marketing, Planning and Operating.

4. I am the past chairman of the Virginia-Carolinas Reliability Agreement Executive Committee and the North American Electric Reliability Council (NERC) Reliability Assessment Subcommittee. I served on the NERC Board of Trustees and am a past chairman of the Southeastern Electric Reliability Council (SERC) Board of Directors and the SERC Engineering Committee. I am a member of the Institute of Electrical and Electronic Engineers and a U. S. Representative on the International Conference on Large High Voltage Electric Systems Study Committee 37-Power System Planning and Development.

5. In November 1999 I was named Vice President of Grid Operations. In this position I am responsible for overseeing the operation of the Duke bulk power system which includes more than 12,000 miles of transmission lines and more than 19,000 MW of generating capacity consisting of three nuclear stations, nine coal and gas fired stations and 30 hydro electric and pumped storage facilities.

6. Reliability organizations such as NERC and SERC were formed to promote the adequacy and reliability of the North American bulk power grid. Although membership in these organizations is voluntary, all systems in North America follow the Policies, Procedures, and Guides established by NERC and the Regional Councils.

7. Duke Power operates in a geographic region in the Southeast that is contiguous to TVA. Both entities are members of SERC and are interconnected with high voltage transmission facilities. Systems developed high voltage interconnections primarily to enhance overall network reliability. These interconnections facilitate the exchange of power during emergency conditions.

8. Electricity flows across this interconnected grid without respect to assigned geographic service areas. A consequence of such interconnections is that service disruptions in one area can have a profound impact on other systems in the region. In some cases these impacts could extend well beyond regional boundaries. These effects would be not unlike an interruption in other critical infrastructure facilities such as pipelines, railroads, or interstate highways.

9. Licensing, permitting, and construction times for bulk power facilities will vary but typically are about three years for gas fired combustion turbines and up to ten years or more for major transmission facilities. Unexpected and unanticipated unavailability of generating facilities immediately affects supply adequacy and is likely to affect the reliability of the interconnected grid. Because of lead-times associated with replacement facilities and network enhancements these effects cannot be immediately resolved.

10. I have reviewed the Administrated Compliance Order ("Order") that the United States Environmental Protection Agency ("EPA") issued to TVA. The Order establishes a process whereby EPA will set a schedule for the temporary or permanent shut down of most of TVA's coal-fired power plants. EPA has identified specifically 14 TVA units at which allegedly illegal modifications triggering New Source Review (NSR) controls occurred. In addition, TVA is required under the Order to audit all its units to determine if projects similar to the allegedly illegal projects identified in the Order occurred at the rest of TVA's units. Thus, at least 14, and

possibly all of TVA's units face either temporary or permanent shutdown. Where TVA chooses to install pollution control equipment the shutdown would be temporary. In some instances TVA may choose to retire a unit rather than to install expensive control equipment. But even a temporary shutdown can extend for twelve weeks or more, and the type of equipment needed to achieve the stringent Best Available Control Technology/Lowest Achievable Emission Rate (BACT/LAER) requirements that EPA requires are likely to require lengthy outages or shutdowns.

11. Based on my past experience in this industry, I believe that there is a strong possibility that if Tennessee Valley Authority ("TVA") is forced to comply with the Order issued to TVA by the Environmental Protection Agency ("EPA"), it is likely that some TVA generating plants may be withdrawn from service.

12. If, in the course of complying with the Order, TVA generating plants are withdrawn from service for a prolonged period and without sufficient lead-time it is reasonably certain that adequacy and reliability of power supply in the Southeast will be adversely affected. This is because there will be insufficient time to plan, permit, and construct replacement facilities. These adequacy and reliability issues directly and negatively affect Duke Energy, its affiliates, and its customers.

13. EPA's Order does not set a specific deadline for TVA to complete controlling its units to (BACT/LAER) levels. Rather the Order requires TVA to propose a schedule to EPA for approval. The length of the schedule is critical to mitigating the adverse impacts discussed above, however, an unrealistically short schedule would present significant risks and consequences. Thus, the Order's impact on Duke's system reliability is directly related to the schedule that EPA ultimately approves.

14. System adequacy is determined in part by capacity margins. Capacity margins are maintained to accommodate unexpected events such as prolonged hot or cold spells (forecast uncertainty) as well as lower than average availability of generating facilities. When plants are withdrawn from service for an extended period of time supply adequacy in the region is affected because regional capacity margins are reduced. This, in turn, will affect traditional flow patterns on the transmission systems. As a result operating margins are reduced leaving operators with fewer options as they manage the day-to-day operation of the grid. Operation of generating and transmission facilities are interdependent. Generating facilities provide voltage support for the grid which is critical for system reliability. Absence of this voltage support will result in lower overall system voltage negatively affecting customer service. Low voltage conditions are commonly referred to as brownouts. Such conditions are more common during hot weather periods.

15. In addition to the risk posed by TVA outages arising from efforts to comply with EPA's Order and whatever schedule is imposed, power plants all across the SERC region are expected to undertake numerous outages of long duration from 2000 to 2003 to comply with EPA's NOx SIP Call Rule, which requires significant reductions of NOx emissions by May 1, 2003. TVA is the largest utility in the nation, and adding numerous TVA units to the list of those that will have to undergo outages during this same time frame can only exacerbate reliability risks. This can lead to disruptions and outages that impose significant costs and hardship. Because the transmission system is so complex and interconnected, transmission outages which are triggered by localized problems can have far-reaching effects.

16. Withdrawal of generation plants within the region over extended periods likely will have adverse implications for Duke Power Company, other utilities in the region and their

customers. Should systems be required to ration energy as a result of plant unavailability the effect is expected to ripple throughout the regional economy.

17. Any adverse ruling against TVA and any requirement to comply with the existing EPA Order will affect the reliability of the SERC Region due to the possible permanent shutdown of capacity and/or unanticipated maintenance outages needed to install additional environmental controls on TVA units. In addition, for the reasons discussed above, an unreasonably short shut down schedule imposed by EPA will have substantial and direct impacts on power flows adversely affecting Duke's generation and transmission system.

FURTHER AFFIANT SAYETH NOT.

/s/ William F. Reinke
WILLIAM F. REINKE

Sworn to and subscribed before me,
this 21st day of July, 2000.

/s/ Nancy H. Taylor
NANCY H. TAYLOR
Notary Public

My commission expires: January 26, 2002 [seal]

APPENDIX E

UNITED STATES COURT OF APPEALS
FOR THE ELEVENTH CIRCUIT

Docket No. 00-12349-E

TENNESSEE VALLEY PUBLIC
POWER ASSOCIATION,

Petitioner,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, and JOHN H. HANKINSON, JR., Regional Administrator, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION IV,

Respondents.

AFFIDAVIT OF MICHAEL MCDOWELL

STATE OF TENNESSEE:
COUNTY OF HAMILTON:

Comes the Affiant, being duly sworn, deposes as says as follows:

1. My name is Mike McDowell. I am over 18 years of age and have personal knowledge of all matters set forth herein.

2. I am the Executive Director and Chief Custodian of Records of the Tennessee Valley Public Power Association ("TVPPA"). TVPPA, a Tennessee non-profit corporation, represents the interests of the 110 municipal and 50 rural electric cooperative distributors of electrical power listed on Attachment 1. All but one of these municipal and cooperative electrical systems distribute and sell power purchased from TVA to the residents and businesses of the TVA area. This area includes almost all of Tennessee and parts of Alabama,

Georgia, Kentucky, Mississippi, North Carolina, and Virginia, and contains a population of nearly 8,000,000.

3. TVPPA represents the interests of its members in a wide range of activities relating to TVA. For example, several TVPPA Committees (comprised of TVPPA member system representatives) operate under the direction of the TVPPA Board of Directors, including (a) TVPPA's Rates and Contracts Committee, which handles matters relating to the terms, conditions and rates of the power supply contracts between TVPPA member systems and TVA; (b) TVPPA's Power Supply Planning Committee, which handles matters relating to short term and long term power supply issues with TVA; and (3) TVPPA's Governmental Relations Committee, which handles matters relating to state and federal legislation impacting TVA and TVPPA member systems. TVPPA is actively involved in other matters relating to TVA as well. These Petitions for Review are germane to and consistent with the long-standing involvement of TVPPA in representing its members in matters relating to TVA.

4. One hundred fifty-nine (159) TVPPA member systems have entered into long term wholesale power supply contracts with TVA that require each system to purchase all of its requirements of energy and capacity from TVA, with the remaining one member being eligible to purchase wholesale power from TVA but not doing so presently. Copies of the wholesale power contract entered into by TVA with TVPPA members Memphis Light, Gas & Water, Joe Wheeler Electric Membership Corporation, and the Metropolitan Government of Nashville and Davidson County are attached as *Attachment 2* to my Affidavit. The wholesale power contracts of other TVPPA are substantially similar to those included in *Exhibit 2*. While TVA has recently given TVPPA member systems a limited opportunity to arrange for the purchase of small blocks of power from sources other than TVA for transmission into the TVA system, to date no purchases have

been made under that program. During the latest TVA fiscal year, TVPPA members purchased one hundred percent (100%) of their electric energy requirements from TVA, representing approximately eighty-three percent (83%) of the electric energy produced by TVA. TVA's remaining output of electric energy is purchased by very large industrial customers directly served by TVA, by federal agencies, and by others located in the same service area as TVPPA members and which have a major impact upon the economy and welfare of the region served by TVA and TVPPA members.

5. Under these long-term all-requirements contracts, TVA has the right to adjust or change wholesale and retail rates during the term of the contract in order to assure TVA's ability to continue to supply the power requirements of the TVPPA member systems and TVA's other customers on a financially sound basis, including the objective that power shall be sold at rates as low as feasible. As a result, TVPPA member systems and the customers that they serve are ultimately responsible for paying for most of the increases in TVA's costs resulting from TVA's compliance with the EPA Order.

6. One Hundred Nine (109) members of TVPPA are municipal governments in Tennessee, Kentucky, Alabama, Mississippi, Georgia, and North Carolina that buy energy and capacity from TVA. These municipal governments rely upon the availability of low-cost electricity purchased at wholesale from TVA to assist them in economic development efforts and will suffer an economic disadvantage compared to other communities if TVA complies with the EPA Order and TVA's power costs are increased. Businesses, particularly small businesses, farmers, residential ratepayers, and municipalities that receive their electric service from TVPPA member systems organized and operating as rural electric cooperatives also will be substantially and adversely affected by compliance with the EPA Order.

7. TVPPA requested information from TVA relating to the financial impact of compliance with the EPA Order and was furnished a copy of the report submitted by TVA to various members of Congress which is attached as *Attachment 3* to my Affidavit.

/s/ Michael McDowell
MICHAEL MCDOWELL

STATE OF TENNESSEE:
COUNTY OF HAMILTON:

Sworn to and subscribed before me this 24th day July, 2000.

WITNESS my hand and notarial seal at my office in Chattanooga, Tennessee, this ___ day of July, 2000.

/s/ [Illegible]
Notary Public

My commission expires: 3/7/01

APPENDIX F

UNITED STATES COURT OF APPEALS
FOR THE ELEVENTH CIRCUIT

Docket No. 00-12310-E

and

Docket No. 00-12459-E

TENNESSEE VALLEY AUTHORITY,
Petitioner,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, and JOHN H. HANKINSON, JR., Regional Administrator, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION IV,
Respondents.

DECLARATION OF GARY P. GARRETT

1. I have been employed by the Tennessee Valley Authority (TVA) since 1974. I currently hold the position of Project Manager, Transmission Resources, in TVA's Power Resources & Operations Planning organization, which is the TVA organization responsible for identifying current and future demand for electricity on the TVA power system and planning how to meet that demand. I received a Bachelor of Science degree and a Master of Science degree in Electrical Engineering from the University of Texas at Arlington in 1972 and 1974, respectively. I have personal knowledge of the matters stated herein.

2. TVA operates the Nation's largest integrated electric power system, serving approximately eight million people in parts of seven southeastern states. TVA's integrated power system consists of 5 nuclear generating units, 11 coal-fired power plants with 59 units, 29 hydroelectric dams, 48

combustion turbines, and 1 pumped storage facility. The dependable capacity of all of these generating units is 28,502 megawatts. The system is linked by more than 16,000 miles of high-voltage transmission lines.

3. The TVA system is interconnected to 12 neighboring power systems, including Alabama Power, Georgia Power, and Duke Power. These interconnections allow TVA to send and receive electricity to and from the neighboring systems. The neighboring systems are, in turn, connected to other power systems. Collectively, all of the Nation's power systems constitute the national electrical grid. The interconnected power systems east of the Rocky Mountains, exclusive of systems in Texas, are referred to as the "Eastern Interconnect."

4. For many years, TVA's interconnections with other power systems and the routine exchange of electricity among power systems have enhanced the ability of all systems to meet the public's demand for electricity in a reliable manner. Because neighboring systems frequently have peak demands at differing times, electric energy generated on one system can be transmitted to another system to help that system meet its demands.

5. On the TVA system and in the Eastern Interconnect, demand has caught up with the generating capabilities of the systems. On some systems, demand has exceeded the systems' generating capacity. While the Eastern Interconnect is roughly in a state of balance, demand during critical periods has exceeded the available capacity of individual systems, especially during the summers of 1998 and 1999.

6. Because of excessive demand, some systems had to curtail service at various times during the last two summers. TVA-generated power helped to limit the extent of some curtailments and service disruptions.

7. Because of such excessive demand, it is extremely important that TVA's generating units be able to perform reliably. The loss of generating units due to additional equipment breakdown or deterioration would jeopardize TVA's ability to meet the demands on its system and to assist other systems in meeting their demands, and has the potential of leading to brownouts and rolling blackouts, especially during the summer months.

8. In light of the potential impacts of the Environmental Protection Agency's enforcement initiative on the reliability of generating resources in its member utilities, including TVA, Alabama Power, and Georgia Power, the Southeastern Electric Reliability Council (SERC) has requested review of this issue through its Reliability Review Subcommittee. SERC is a part of the North American Reliability Council (NERC). NERC and SERC are not-for-profit organizations that are responsible for promoting the reliability of the electric supply in North America or their sub-regions.

9. Pursuant to 28 U.S.C. § 1746 (1994), I declare under penalty of perjury that the foregoing is true and correct.

Executed this 15th day of May, 2000.

/s/ Gary P. Garett
GARY P. GARRETT

APPENDIX G

UNITED STATES COURT OF APPEALS FOR
THE ELEVENTH CIRCUIT

Docket No. 00-12310-E
and
Docket No. 00-12459-E

TENNESSEE VALLEY AUTHORITY,
Petitioner,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, and JOHN H. HANKINSON, JR., Regional Administrator, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION IV,
Respondents.

DECLARATION OF JERRY L. GOLDEN

1. I have been employed by the Tennessee Valley Authority (TVA) for 27 years. I currently hold the position of Manager, Production Technology, in TVA's Fossil Power Group. My current and past duties and responsibilities include, among other things, evaluation and recommendation of strategies and technologies for emissions reductions and new generation projects and maintenance-project related work. At various times I have served as TVA's Head Mechanical Engineer, Fossil Steam Generation and Equipment; Manager, Advanced Production and Environmental Technology; Manager, Clean Air Program and Generation Technology; and Manager, Fossil Engineering. I have served on the Acid Rain Advisory Committee of the Environmental Protection Agency (EPA), and I have chaired the Base Programs Analysis and Policies Work Group of EPA's Clean Air Act

Advisory Committee. I have read EPA's Compliance Order (order), as amended, which is the subject of this proceeding, and I have personal knowledge of the matters stated herein.

2. TVA operates the Nation's largest integrated electric power system, serving approximately eight million people in parts of seven southeastern states. TVA's integrated power system includes 11 coal-fired power plants with 59 units. TVA must perform necessary maintenance on these units to assure a reliable supply of electricity.

3. Between February 1 and June 1, 2000, TVA scheduled 23 of its 59 coal-fired units for maintenance so that needed electric power will be available during the upcoming high-demand summer season. The maintenance activities scheduled for 7 of these 23 units include projects similar to projects that have been included in either the EPA order or the EPA complaints against other electricity generating units (e.g., superheater elements, reheater). An additional 4 of these 23 units have maintenance activities scheduled that could be included in future EPA enforcement actions based on EPA's theory of routine maintenance, although EPA has not yet specifically identified them in the order or other complaints. Similarly, the maintenance activities at 5 of the 17 units scheduled for maintenance between September 1, 2000, and January 1, 2001, include projects that are similar to the projects identified in EPA's order or its complaints against others. Four more units in this time period are potentially subject to future EPA enforcement actions based on EPA's theory, but have not yet been specifically identified by EPA. The units referred to above are:

FEBRUARY 1 to JUNE 1, 2000

TVA Unit	Unit Size
John Sevier 3	200 MW
Johnsonville 3	125 MW
Kingston 3	175 MW
Kingston 5	200 MW
Kingston 6	200 MW
Paradise 3	1,150 MW
Shawnee 1	175 MW
Gallatin 1	300 MW
Kingston 4	175 MW
Shawnee 2	175 MW
Widows Creek 1	140 MW

SEPTEMBER 1 to JANUARY 1, 2000

TVA Unit	Unit Size
Allen 3	330 MW
Colbert 2	200 MW
Gallatin 3	327 MW
Paradise 1	704 MW
Widows Creek 4	140 MW
Johnsonville 9	172 MW
Kingston 1	175 MW
Kingston 2	175 MW
Shawnee 6	175 MW

These projects are typical of the kind of projects that TVA routinely undertakes during its spring and fall outage seasons. If TVA had to obtain permits in advance of these or other scheduled maintenance activities, the scheduled work might have to be postponed since it can take a year or more to obtain a single permit. This kind of delay in carrying out needed maintenance projects would jeopardize the reliability of the TVA system and its service to the public.

4. In addition to scheduled maintenance outages, there can be "forced" outages when an element of a component or entire component suddenly fails, forcing TVA to shut down the entire generating unit. Based on TVA's historical experience, such forced outages can include elements or components that are similar to the elements or components EPA has identified in its order to TVA or in the complaints filed against other utilities. In such outage situations, TVA's routine practice has been to repair or replace the failed element or component as quickly as possible taking into account the availability of other generation and the demand on the TVA system for electricity. However, EPA's current position, as the order shows, is that permits must be obtained before conducting many types of maintenance activities. If TVA were required to obtain permits before conducting maintenance activities during forced outages and before returning these units to service, needed generating capability would be unavailable for an extended period, since, as noted above, it can take a year or more to obtain a single permit.

5. As an alternative to applying for permits, TVA could seek a formal determination from EPA as to whether a specific maintenance project requires a new source permit before proceeding with the project (an "applicability determination" under EPA's regulations). However, such determinations can take months or longer to obtain. For example, Detroit Edison sought an applicability determination from EPA in June 1999 for a proposed project to replace deterio-

rated turbine blades and has yet to receive it. The needed maintenance could not be performed during this period of delay. Moreover, if EPA determined that a permit were necessary, the time required to obtain such a permit would further delay the performance of such maintenance activities.

6. Loss of generating capacity would seriously impact TVA's ability to fulfill its obligations to provide electrical service to the citizens of the Tennessee Valley and could jeopardize the stability of the national electrical grid during periods of peak demand. Postponement of the scheduled maintenance work on other TVA coal-fired units would exacerbate the problems by creating the substantial risk that equipment in need of maintenance will break down or deteriorate, leading to an even greater loss of reliable generating capability. Sudden breakdown of equipment also can result in injuries to employees and loss of life.

7. Pursuant to 28 U.S.C. § 1746 (1994), I declare under penalty of perjury that the foregoing is true and correct.

Executed this 15 day of May, 2000.

/s/ Jerry L. Golden
JERRY L. GOLDEN

APPENDIX H

[Logo]

TENNESSEE VALLEY AUTHORITY
400 West Summit Hill Drive
Knoxville, Tennessee 37902-1499

Craven Crowell
Chairman, Board of Directors

November 4, 1999

The Honorable Fred Thompson
United States Senate
523 Dirksen Senate Office Building
Washington, DC 20510-4204

Dear Fred:

Yesterday, the Environmental Protection Agency announced that it was taking action to require the installation of new pollution control equipment on coal fired power plants operated by seven private utilities and TVA. We wanted to share with you TVA's views on this action.

TVA agrees with EPA that pollution from coal-fired power plants must be reduced further if the Tennessee Valley region and the rest of the nation are to continue to improve air quality. In fact, last summer TVA became the nation's first utility to implement an aggressive NOx reduction strategy which includes installing state-of-the-art pollution controls on TVA's largest coal plants. This enormous investment will help reduce ozone problems in the Smokies, allow continued purchases of Kentucky coal, and help Valley states meet their ozone reduction strategies while allowing continued industrial and economic development.

So while we support EPA's goal, we disagree with their means of achieving it.

All utilities, including TVA, routinely repair and replace broken equipment at their plants. It is through such activities that we are able to maintain reliable electric service to the public and why, last summer, TVA was able to meet record demands for electricity in the Valley without interrupting service. EPA is now saying that such maintenance practices trigger the requirement to install controls designed for new power plants. This is a dramatic change in how EPA has applied these requirements in the past. Under this new interpretation, EPA says that 80 to 90 percent of the utility industry is in violation of its new source control regulations because of maintenance projects over the last 20 years.

At TVA, the total cost of complying with this regulation could exceed $1 billion. Indeed, the combination of capital costs, interest expense, and ongoing operating expenses would require a 14-percent rate increase. The increased costs for every business and residence in the region could limit economic growth.

Not only does this new interpretation threaten our ability to continue to maintain reliable operation of our units, but it potentially limits our ability to put controls where they will do the most good. In the pollution reduction plan we announced last summer, we put control equipment on plants that would most help meet the needs of the region, such as the efforts by Memphis, Tennessee, and Louisville, Kentucky, to meet EPA's air quality health standards, and to address the problems in the Smokies. Under EPA's approach, controls would be installed on plants where EPA thinks it can make its best legal case—without regard to the region's air quality problems.

We hope to be able to work with EPA on a resolution that will allow us to continue to reduce TVA's emissions where

and how it makes the most sense. We also want to reach a resolution that will allow us to maintain unit reliability and to continue to fully meet the public's need for electricity. It is also important that any resolution treats TVA and our ratepayers no differently than other utilities and their ratepayers.

I appreciate this opportunity to share our views with you and will keep you informed of further developments.

Sincerely,

/s/ Craven Crowell
CRAVEN CROWELL

APPENDIX I

UNITED STATES COURT OF APPEALS FOR
THE ELEVENTH CIRCUIT

Docket No. 00-12310-E and
Docket No. 00-12459-E
(Consolidated under lead
Docket No. 00-12310-E)

ALABAMA POWER COMPANY, and
DUKE ENERGY CORPORATION,

Petitioners,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, and
JOHN H. HANKINSON, JR., Regional Administrator,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
REGION IV,

Respondents.

DECLARATION OF THOMAS L. GILES

I, Thomas L. Giles, having been duly sworn, depose and say as follows:

1. For the past 22 years, I have resided in Houston, Texas, which is located in Harris County. I am over 18 years of age, and give this affidavit based on my personal knowledge.

2. I have a Bachelor of Science Degree in Mechanical Engineering from the University of Tennessee in Knoxville, Tennessee, and a Master of Business Administration Degree from the Houston Baptist University in Houston, Texas. I have also attended South Texas College of Law in Houston,

Texas. Lastly, I am a Registered Professional Engineer in both Louisiana and Texas.

3. I have worked for Duke Energy Corporation, the Petitioner in the above-captioned case, for approximately twenty-nine (29) years. For the vast majority of this period (i.e. 28.5 years), I have worked for Duke Energy Gas Transmission. During my years in gas transmission, I have held positions of increasing responsibility relating to the application of hydraulic engineering principles to manage pipeline capacity and energy consumption.

4. For the past 3.5 years, I have worked as the Duke Energy Gas Transmission Energy Manager for Texas Eastern Transmission Corporation ("TETCO"). TETCO is a wholly-owned subsidiary of Duke Energy Corporation. In this position, my responsibilities include developing and implementing TETCO's pipeline operation energy management plan. This plan helps TETCO achieve quantifiable operating efficiencies and to improve the overall management of the system. My responsibilities also include developing the necessary tools to manage TETCO's energy resources; developing consistent performance measures; and developing capital/O&M budget recommendations. In conjunction with the Manager of Gas Control and the Manager of Gas Planning, I am also responsible for the daily management of the pipeline system's energy consumption.

5. The TETCO pipeline system consists of approximately 10,000 miles of pipeline and 74 compressor stations with 1,500,000 installed horsepower (HP). The pipeline system transports natural gas from the Texas-Louisiana Gulf Coast to shippers located in the northeast United States (including Public Service Electric and Gas in New Jersey; Keyspan in New York; and Boston Gas Company in Massachusetts). The majority of the system facilities were built during the 1950's and early 1960's.

6. TETCO uses compressor stations for the compression and transmission of natural gas. Gas is transmitted by compressing it and allowing it to flow naturally through the pipe in the desired direction, which is lower in pressure. In most pipeline systems, these compressor stations are typically gas-fired, operating by combusting natural gas taken from the pipeline. However, at the time the TETCO pipeline system was constructed, electric power was an economic alternative to natural gas as a source of energy in the Tennessee Valley. As a result, TETCO is atypical in that some of its compressor stations use electricity, rather than natural gas to compress the gas.

7. TETCO buys electric power from TVA for five of its electric drive compressor stations. More specifically, TETCO uses 180,000 HP in the form of electric motors to power compressors at five locations in TVA's territory. These plants are located near Egypt, MS (45,000 electric HP), Barton, AL (30,000 electric HP), Mt. Pleasant, TN (45,000 electric HP), Gladeville, TN (30,000 electric HP) and Tompkinsville, KY (30,000 electric HP).

8. In contrast to the other intervenors or petitioners, TETCO is a direct served customer of TVA's at two compressor stations, and is a TVA distributor served customer at three compressor stations. The unavailability of power for these compressor drives would result in a loss on capacity of approximately 15% - 20%. Currently, TETCO does not have any other alternative source of electricity in the Tennessee Valley. Accordingly, in these circumstances, under peak day winter conditions when the pipeline is operating at full capacity, TETCO would be forced to restrict the use of the pipeline and limit the transportation volume. This would require the shippers to seek alternative transportation paths and/or reduce gas consumption.

Sworn to and subscribed before me,

This 21 day of July, 2000.

/s/ Kathy Cash
KATHY CASH
Notary Public

My commission expires: 10-15-2002

[Seal]

APPENDIX J

1. Section 7401 of Title 42 of the United States Code provides, in relevant part:

§ 7401. Congressional findings and declaration of purpose

* * * *

(b) Declaration of Purpose

The purposes of this subchapter are—

(1) to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population;

(2) to initiate and accelerate a national research and development program to achieve the prevention and control of air pollution;

(3) to provide technical and financial assistance to State and local governments in connection with the development and execution of their air pollution prevention and control programs; and

(4) to encourage and assist the development and operation of regional air pollution prevention and control programs.

* * * *

2. Section 7409 of Title 42 of the United States Code provides, in relevant part:

§ 7409. National primary and secondary ambient air quality standards

* * * *

(d) Review and revision of criteria and standards; independent scientific review committee; appointment; advisory functions

(1) Not later than December 31, 1980, and at five-year intervals thereafter, the Administrator shall complete a

thorough review of the criteria published under section 7408 of this title and the national ambient air quality standards promulgated under this section and shall make such revisions in such criteria and standards and promulgate such new standards as may be appropriate in accordance with section 7408 of this title and subsection (b) of this section. The Administrator may review and revise criteria or promulgate new standards earlier or more frequently than required under this paragraph.

(2)(A) The Administrator shall appoint an independent scientific review committee composed of seven members including at least one member of the National Academy of Sciences, one physician, and one person representing State air pollution control agencies.

(B) Not later than January 1, 1980, and at five-year intervals thereafter, the committee referred to in subparagraph (A) shall complete a review of the criteria published under section 7408 of this title and the national primary and secondary ambient air quality standards promulgated under this section and shall recommend to the Administrator any new national ambient air quality standards and revisions of exist ing criteria and standards as may be appropriate under section 7408 of this title and subsection (b) of this section.

(C) Such committee shall also (i) advise the Administrator of areas in which additional knowledge is required to appraise the adequacy and basis of existing, new, or revised national ambient air quality standards, (ii) describe the research efforts necessary to provide the required information, (iii) advise the Administrator on the relative contribution to air pollution concentra tions of natural as well as anthropogenic activity, and (iv) advise the Administrator of any adverse public health, welfare, social, economic, or energy effects which may result from various strategies for attain ment and maintenance of such national ambient air quality standards.

3. Section 7470 of Title 42 of the United States Code provides:

§ 7470. Congressional declaration of purpose

The purposes of this part are as follows:

(1) to protect public health and welfare from any actual or potential adverse effect which in the Administrator's judgment may reasonably be anticipate[1] to occur from air pollution or from exposures to pollutants in other media, which pollutants originate as emissions to the ambient air),[2] notwithstanding attainment and maintenance of all national ambient air quality standards;

(2) to preserve, protect, and enhance the air quality in national parks, national wilderness areas, national monuments, national seashores, and other areas of special national or regional natural, recreational, scenic, or historic value;

(3) to insure that economic growth will occur in a manner consistent with the preservation of existing clean air resources;

(4) to assure that emissions from any source in any State will not interfere with any portion of the applicable implementation plan to prevent significant deterioration of air quality for any other State; and

(5) to assure that any decision to permit increased air pollution in any area to which this section applies is made only after careful evaluation of all the consequences of such a decision and after adequate procedural opportunities for informed public participation in the decisionmaking process.

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[1] So in original. Probably should read "anticipated."

[2] So in original. No opening Parenthesis.